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## WHAT ARE PHANTASMS, AND WHY DO THEY APPEAR?

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THE theories which have been suggested by the more prominent members of the Society for Psychical Research in order to explain the phenomena of phantasms or apparitions of various kinds, are all founded on telepathy, or thought-transference, the facts of which have been demonstrated by a long series of experiments. It is found that many persons are more or less sensitive to the thoughts or will-powers of others, and are able to reproduce, more or less closely, any definite mental images sought to be conveyed to them. It is urged that those who experience phantasmal sights or sounds are a kind of thought-readers, and are so powerfully affected by the thoughts of friends who are in certain excitable mental states or physical crises, especially at periods of imminent danger or when at the point of death, as to externalize those thoughts in visual or auditory hallucinations either in the waking state or as unusually vivid dreams.

This telepathic theory is held to receive strong support, and in fact to be almost proved, by the curious phenomena of the doubles, or phantasms, of living persons being seen by certain sensitive friends, when those persons strongly *will* that they shall be so seen. Such are the cases of a friend appearing to Mr. Stainton Moses at a time when this friend had fixed his thoughts upon him before going to bed; and those of Mr. B—— who several times appeared in the night to

two ladies, on occasions when he went to sleep with the express wish and intention of appearing to them.\* There are, however, difficulties in these cases. The supposed agent does not usually decide exactly how he will appear or what he will do. In one case Mr. B—— appeared, not to the ladies he was thinking of, but a married sister, hardly known to him, who happened to be occupying their room. This lady saw the phantasm in the passage, going from one room to the other, at a time when the agent wished to be in the house; and again, the same night, at a time when he wished to be in the front bedroom, and on this occasion the phantasm came to her bedside and took hold of her hair, and then of her hand, gazing intently into it. Now it is an assumption hardly warranted by the facts, that the mere wish or determination to be in a certain part of a house at a certain time could cause a phantasm to appear to a person who happened unexpectedly to be there, and cause that phantasm to perform, or appear to perform, certain acts which do not appear to have been *willed* by the supposed agent. This is certainly not telepathy in the usually accepted sense; it is not the transference of a thought to an individual, but the production of what seems to be an objective phantasm in a definite locality. It is altogether inconceivable, that a mere wish could produce such a phantasm, unless, indeed, we suppose the spirit of the sleeper to leave the body in order to go to the desired place, and that it possesses the power to render itself visible to anyone who happens to be there. Let us then see whether there are any other facts concerning doubles which may throw some light on this question.

Mr. Fryer, of Bath, England, heard his name distinctly called in the voice of a brother who had been some days absent from home. At the same moment, as near as could be ascertained, the brother missed his footing and fell on a railway platform, calling out his brother's name as he fell.† Similar in character is the case of Mrs. Severn, who, while in bed one morning, felt a violent blow on her lip so real that she put her handkerchief to it, expecting to find it bleeding. At the same time Mr. Severn, caught by a squall in a boat, received a violent blow on the same part of his mouth from the tiller. In the first case, Mr. Fryer's brother had no con-

\* Phantasms of the Living, Vol. I., pp. 103-108.

† Proc. Soc. Ps. Res., Vol. I., p. 134.

scious wish to be heard by him; and in the other case, Mr. Severn certainly did not wish his wife to feel the blow, but, on the contrary, was extremely anxious to conceal from her that he had had a blow at all.\* In both these cases, if the supposed agents had anything to do with the actual production of the phantasmal voice and sensation, it was by some unconscious or automatic process. But the experimental evidence for telepathy shows it to be produced by the conscious and active will-power of the agent or agents, and would therefore prove, if anything, that in both these cases there was some third party who was really the agent in willing and producing the telepathic effect. This is rendered still more probable by other cases of "doubles" and of warnings, of which the following is one of the most remarkable.

Mr. Algernon Joy, an engineer employed on the Penarth Docks, at Cardiff, South Wales, was walking in a country lane near the town, absorbed in a calculation connected with the Docks, when he was attacked and knocked down by two young colliers. His thoughts were then immediately directed to the possible cause of the attack, to the possibility of identifying the men, and to informing the police. He is positive that for about half an hour previous to the attack and for an hour or two after it, there was no connection whatever, direct or indirect, between his thoughts and a friend in London. Yet at almost the precise moment of the assault, this friend recognized Mr. Joy's footstep in the street, behind him, then turned and saw Mr. Joy "as distinctly as ever he saw him in his life," saw he looked distressed, asked what was the matter, and received the answer, "Go home, old fellow, I've been hurt." All this was communicated in a letter from the friend which crossed one from Mr. Joy, giving an account of the accident.† In this case, whether the "double" was an audible and visual veridical hallucination, or an objective phantasm, it could not have been produced without some adequate cause. To assert that Mr. Joy was himself the unconscious cause cannot be looked upon as an explanation, or as in any way helping us to a comprehension of how such things can happen. We imperatively need a producing agent, some intellectual being having both the will and the power to produce such a veridical phantasm.

\* Proc. Soc. Ps. Res., Vol. VI., p. 128.

† Phantasms of the Living, Vol. II., p. 524.

The next case still more clearly demands an agent other than that of any of the parties immediately concerned. Mr. F. Morgan, of Bristol, a young man who lived with his mother, was attending a lecture in which he was much interested. On entering the lecture room he saw a friend, with whom he determined to walk home after the lecture. About the middle of the lecture he noticed a door at the side of the platform farthest from the entrance to the hall, and he suddenly, without knowing why, got up and walked half the length of the hall to see if the door would open. He turned the handle, entered, and closed the door behind him, finding himself in the dark under the platform. Noticing a glimmer of light he went towards it, got into a passage which led again into the hall, the end of which he crossed to the entrance door, without any thought of the lecture which was still going on, or of the friend with whom he had meant to return, and then walked home quietly, without any excitement or impression of any kind, and quite unconscious till long after that he had done anything unusual. When he got home, however, he found that the house next to his was on fire and his mother in great alarm. He instantly removed his mother to a place of safety, and then had two or three hours' struggle with the flames. The adjoining house was burnt down, and his own was in great danger, and was slightly damaged.

Mr. Morgan states that his character is such that had he felt any impression that there was a fire, or that his mother was in danger, he should probably have shaken it off as mere fancy and refused to obey it. His mother simply wished for his presence, but exerted no will-power towards him. What agency, then, was it that acted upon his mental organization, at first apparently through simple curiosity, in such a strange yet effectual way, bringing him home so promptly, and yet without his feeling that he was in any way being influenced or guided in his actions, which seemed to himself to be perfectly voluntary and normal? We cannot avoid seeing in this case the continuous exercise of some mental influence, guided by accurate knowledge of the character of the individual and of his special surroundings at the moment, and directed with such care and judgment as to avoid exciting in him that antagonism which would have been fatal to the object aimed at. We see then that, even confining ourselves to undoubted



phantasms of the living, or to impressions not connected with death, the facts are totally inexplicable on any theory of telepathy between living persons, but clearly point to the agency of preter-human intelligences—in other words, of spirits. The prejudice against such a conception is enormous, but the work of the Psychical Research Society has, it is to be hoped, somewhat undermined it. They have established, beyond further dispute for all who study the evidence, that veridical phantasms of the dead do exist; and the evidence itself—not ignorant or even scientific prejudice—must decide whether these phantasms which, as we have seen in my last article, are often objective, are the work of men or of spirits.

Before adducing further evidence on this point, it will be well to consider briefly, the extraordinary theory of the “second self” or “unconscious *ego*,” which is appealed to by many modern writers as a substitute for spirit agency when that of the normal human being is plainly inadequate. This theory is founded on the phenomena of dreams, of clairvoyance, and of duplex personality, and has been elaborately expounded by Du Prel in two volumes 8vo, translated by Mr. C. C. Massey. As an example of the kind of facts this theory is held to explain, we may refer to the experiments of the Rev. P. H. Newnham and Mrs. Newnham with planchette. The experiments were conducted by Mrs. N—— sitting at a low table with her hand on the planchette, while Mr. H—— sat with his back towards her at another table eight feet distant. Mr. N—— wrote questions on paper, and instantly, sometimes simultaneously, the planchette under Mrs. N——’s hand wrote the answers. Experiments were carried on for eight months, during which time three hundred and nine questions and answers were recorded. All kinds of questions were asked, and the answers were always pertinent to the questions though often evasions rather than direct answers. Great numbers of the answers did not correspond with the opinions or expectations of either Mr. or Mrs. N——, and were sometimes beyond their knowledge. To convince an incredulous visitor, Mr. N—— went with him into the hall, where he, the visitor, wrote down the question, “What is the Christian name of my eldest sister?” Mr. N—— saw the question but did not know the name, yet on returning to the study they found that planchette had already written “Mina,” the family abbreviation of Wilhelmina, which was

the correct name. Mr. N — is a Free Mason, and asked many questions as to the Masonic ritual of which Mrs. N — knew nothing. The answers were partly correct and partly incorrect, sometimes quite original, as when a prayer used at the advancement of a Mark Master Mason was asked for, and a very admirable prayer instantly written out, using Masonic terms, but, Mr. N — says, quite unlike the actual prayer he was thinking of, and also unlike any prayer used by Masons or known to Mr. N —. It was in fact, as Mr. N — says, "a formula composed by some intelligence totally distinct from the conscious intelligence of either of the persons engaged in the experiment."

Now all this, and a great deal more equally remarkable, is imputed to the agency of Mrs. Newnham's "unconscious self," a second independent, intelligent personality of which Mrs. Newnham herself knows nothing except when it "emerges" under special conditions, such as those here described. In the same way Du Prel explains all the phenomena of clairvoyance, of premonitions, of apparent possession, and of the innumerable cases in which sensitives exhibit knowledge of facts which in their normal state they do not possess, and have had no possible means of acquiring.

But is this so-called explanation any real explanation, or anything more than a juggle of words which creates more difficulties than it solves? The conception of such a double personality in each of us, a second self which in most cases remains unknown to us all our lives, which is said to live an independent mental life, to have means of acquiring knowledge our normal self does not possess, to exhibit all the characteristics of a distinct individuality with a different character from our own is surely a conception more ponderously difficult, more truly supernatural than that of a spirit-world, composed of beings who have lived, and learned, and suffered on earth, and whose mental nature still subsists after its separation from the earthly body. We shall find, too, that this latter theory explains *all* the facts simply and directly, that it is in accordance with *all* the evidence, and that in an overwhelming majority of cases, it is the explanation given by the communicating intelligences themselves. On the "second self" theory, we have to suppose that this recondite but worser half of ourselves, while possessing some knowledge we have not, does not know that it is part of us, or if it knows, is a

persistent liar, for in most cases it adopts a distinct name, and persists in speaking of us, its better half, in the third person.

But there is yet another, and I think a more fundamental objection to this view, in the impossibility of conceiving how, or why, this second-self was developed in us under the law of survival of the fittest. The theory is upheld to avoid recourse to any "spiritual" explanation of phenomena, "spirit" being the last thing our modern men of science "will give in to."\* But if so—if there is no spiritual nature in man that survives the earthly body, if man is but a highly intellectual animal developed from a lower animal form under the law of the survival of the fittest, how did this "second-self," this "unconscious *ego*," come into existence? Have the mollusk and the reptile, the dog and the ape, "unconscious *egos*"? And if so, why? And what use are they to these creatures, so that they might have been developed by means of the struggle for existence? Darwin detected no sign of such "second-selves" either in animals or men; and if they do not pertain to animals but do pertain to men, then we are involved in the same difficulty that is so often urged against spiritualists, that we require some break in the law of continuous development, and some exertion of a higher power to create and bring into the human organism this strange and useless "unconscious *ego*"—useless except to puzzle us with insoluble problems, and make our whole nature and existence seem more mysterious than ever. Of course this unconscious *ego* is supposed to die with the conscious man, for if not, we are introduced to a new and gratuitous difficulty, of the relation of these two intelligences and characters, distinct yet bound indissolubly together, in the after life.

Finding, therefore, that the theory of duplex personality creates more difficulties than it solves, while the facts it proposes to explain can be dealt with far more thoroughly on the spiritual hypothesis, let us pass on to consider the further evidence we possess for the agency of the spirits of the dead, or of some other preter-human intelligences.

We will first consider the case of Mrs. Menneer, who dreamed twice the same night, that she saw her headless brother standing at the foot of the bed with his head lying on a coffin

\* This was Sir David Brewster's expression after witnessing Home's phenomena. See Home's "Incidents of my Life," Appendix, p. 245.

by his side. She did not at the time know where her brother, Mr. Wellington, was, except that he was abroad. He was, however, at Sarawak, with Sir James Brooke, and was killed during the Chinese insurrection there, in a brave attempt to defend Mrs. Middleton and her children. Being taken for the Rajah's son, his head was cut off and carried away in triumph, his body being burned with the Rajah's house. The date of the dream coincided approximately with that of the death.\* Now in this case it is almost certain that the head was cut off *after* death, since these Chinese were not trained soldiers, but gold miners, who would strike, and stab, and cut with any weapons they possessed, but could certainly not kill a European on his defence by cutting off his head at a blow. The impression on the sister's brain must, therefore, have been made either by the dead brother, or by some other intelligence, probably the latter, as it was clearly a symbolic picture, the head resting on the coffin showing that the head alone was recovered and buried. In a published letter of Sir James Brooke's he says — "Poor Wellington's remains were likewise consumed, his head borne off in triumph, *alone attesting* his previous murder."

Another case recorded in the same volume, is still more clear against the theory of telepathy between living persons. Mrs. Storie, of Edinburgh, living at the time in Hobart Town, Tasmania, one night dreamed a strange, confused dream, like a series of dissolving views. She saw her twin brother sitting in the open air, in the moonlight, sideways, on a raised place. Then he lifted his arm saying, "*The train, the train!*" Something struck him, he fell down fainting, a large dark object came by with a *swish*. Then she saw a railway compartment, in which sat a gentleman she knew, Rev. Mr. Johnstone. Then she saw her brother again. He put his right hand over his face as if in grief. Then a voice, not his voice, telling her he was going away. The same night her brother was killed by a train, having sat down to rest on the side of the track and fallen asleep. The details in the dream, of which the above is a bare abstract, were almost exactly as in the event, and the Mr. Johnstone of the dream was in the train that killed her brother. Now this last mentioned fact could not have been known to the dead man during life, and the

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\* Phantasms of the Living, Vol. I., p. 365.

dream-picture of the event must, therefore, have been due to the telepathic power of the dead man, or of some spirit-friend acquainted with the facts, and wishing to give a proof of spirit-life.

Take next the case of the Glasgow manufacturer settled in London, who dreams that one of his workmen in Glasgow, whom he had befriended as a lad, but with whom he had not had any direct relations for many years, comes to speak to him, begging him not to believe what he is accused of doing. On being asked what it is, he repeats three times, emphatically, "Ye'll sune ken." The dreamer also notices that the man has a remarkable appearance, bluish pale with great drops of sweat on his face. On awaking, his wife brings him a letter from his manager in Glasgow, telling him that this man, Robert Mackenzie, has committed suicide by drinking *aqua fortis*. The symptoms of poisoning by *aqua fortis* are those observed in the dream figure.\* Here the man had died two days before the dream, which was just in time to correct the false impression of suicide that would have been produced by the letter. The whole of the features and details of the dream are such as could hardly have been due to any other agent than the dead workman himself, who was anxious that a master who had been kind to him when a lad, should not be led to credit the false accusation against him.

Dreams giving the details of funerals at a distance are not uncommon. As an example we have one in which Mr. Stainton Moses was invited to the funeral of a friend in Lincolnshire, but could not go. About the time of the funeral, however, he fell into a trance, and appeared to be at the ceremony, and on again becoming conscious, wrote down all the details, describing the clergyman, who was not the one who had been expected to officiate, the churchyard, which was at a distance in Northamptonshire, with a particular tree near the grave. He then sent this description to a friend who had been present, and who wrote back in astonishment as to how he could have obtained the details. † This may be said to be mere clairvoyance; but clairvoyance is a term that explains nothing, and is quite as mysterious and unintelligible if supposed to occur without the intervention of disembodied intelligences as if with their help. These cases

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\* Proc. Soc. Ps. Res., Pt. VIII. pp. 95-98.

† Harrison's "Spirits before our Eyes," p. 148.

also merge into others which are of a symbolical nature, and which clairvoyance of actual scenes at a distance cannot explain. A well-attested case of this kind is the following:

Philip Weld, a student at a Catholic College, was drowned in the river at Ware, Hertfordshire, in the year 1846. About the same hour as the accident, the young man's father and sister, while walking on the turnpike road near Southampton, saw him standing on the causeway with another young man in a black robe. The sister said, "Look, papa, there is Philip." Mr. Weld replied, "It is Philip indeed, but he has the look of an angel." They went on to embrace him, but before reaching him a laboring man seemed to walk through the figures, and then with a smile both figures vanished. The President of the College, Dr. Cox, went immediately to Southampton, to break the sad news to the father, but before he could speak, Mr. Weld told him what he had seen, and said he knew his son was dead. A few weeks afterwards, Mr. Weld visited the Jesuit College of Stonyhurst in Lancashire, and in the guest-room saw a picture of the very same young man he had seen with his son, similarly dressed, and in the same attitude, and beneath the picture was inscribed "St. Stanislaus Kotska," a saint of the Jesuit order who had been chosen by Philip for his patron saint at his confirmation.\*

Now, here is a case in which phantasms of the son and of another person appear to two relatives, and the presence of the unknown person was eminently calculated, when his identity was discovered, to relieve the father's mind of all fear for his son's future happiness. It is hardly possible to have a clearer case of a true phantasm of the dead, not necessarily produced either *by* the dead son or the Jesuit saint, but most probably by them, or by some other spirit friend who had the power to produce such phantasms, and so relieve the anxiety of both father and sister. It is not conceivable that any living person's telepathic action could have produced such phantasms in two percipients, the only possible agent being the President of the College, who did not recognize by Mr. Weld's description, the dark-robed young man who appeared with his son.

This introduces a feature rather common in phantasms of

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\* Harrison's "Spirits before our Eyes," p. 116, extracted from "Glimpses of the Supernatural," by the Rev. F. G. Lee.



the dead some indication of happiness, something to take away any feeling of gloom or sorrow. Thus, a young man is drowned by the foundering of the *La Plata* telegraphic ship in December, 1874; and, just before the news arrived, his brother in London dreamed that he was at a magnificent fête, in a spacious garden with illuminated fountains and groups of gentlemen and ladies, when he met his brother in evening dress, and "the very image of buoyant health." He was surprised, and said: "Hallo! D——, how are you here?" His brother shook hands with him and said: "Did you not know I have been wrecked again?" The next morning the news of the loss of the ship was in the papers.\* Here, whether the phantasm was caused by the dead man himself, or by some other being, it was apparently intended to show that the deceased was as cheerful and well off after death as during life.

So, when the voice of Miss Gambier Parry was heard twelve hours after her death by her former governess, Sister Bertha, at the House of Mercy, Bovey Tracey, Devonshire, it said, "in the brightest and most cheerful tone, 'I am here with you.'" And on being asked, "Who are you?" the voice replied, "You mustn't know yet."†

And again, when a gentleman going to the dining-room for an evening smoke, sees his sister-in-law, he says: "Maggie suddenly appeared, dressed in white, with a most heavenly expression on her face. She fixed her eyes on me, walked round the room, and disappeared through the door that leads into the garden."‡ This was the day after her death. Yet one more instance: Mr. J. G. Kenlemaus, when in Paris, was awoke one morning by the voice of a favorite little son of five years old, whom he had left quite well in London. He also saw his face in the centre of a bright opaque white mass, his eyes bright, his mouth smiling. The voice heard was that of extreme delight, such as only a happy child can utter. Yet the child had then just died.§ Whose telepathic influence caused this phantasm of this happy, smiling child to appear to the father? Surely no living person, but rather some spirit friend or guardian wishing to show that the

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\* Proc. Soc. Ps. Res., Part XIV., p. 456.

† Phantasms of the Living, Vol. I., p. 522.

‡ Phantasms of the Living, Vol. II., p. 702.

§ Proc. Soc. Ps. Res., Vol. I., p. 126.

joyousness of life still remained with the child, though its earthly body was cold and still.

Another characteristic feature of many of these dreams or waking phantasms is that they often occur, not at the moment of death but just before the news of the death reaches the percipient, or there is some other characteristic feature that seems especially calculated to cause a deep impression, and give a lasting conviction of spiritual existence. Several cases of this kind are given or referred to in the *Proceedings of the Society for Psychical Research* (Pt. XV., pp. 30, 31). A most extraordinary example is that of Mr. F. G., of Boston, then of St. Louis, Mo., who, when in St. Joseph, Mo., fully occupied with business, saw a phantasm of his only sister, who had been dead nine years. It was at noonday while he was writing, and she appeared close to him and perfectly life-like, so that for a moment he thought it was really herself, and called her by her name. He saw every detail of her dress and appearance, and particularly noticed a bright red line or scratch on the right hand side of her face. The vision so impressed him that he took the next train home, and told what he had seen to his father and mother. His father was inclined to ridicule him for his belief in its being anything supernatural, but when he mentioned the scratch on the face his mother nearly fainted, and told them with tears in her eyes, that she had herself made that scratch accidentally, after her daughter's death, but had carefully hidden it with powder, and that no living person but herself knew of it. A few weeks after, the mother died happy in her belief that she would rejoin her daughter in a better world.\* Here we can clearly see an important purpose in the appearance of the phantasm, to give comfort to a mother about to die, in the assurance that her beloved daughter, though mourned as dead, was still alive.

A case which illustrates both of the characteristics just alluded to, is that of the Rev. C. C. Wambey of Salisbury, England, who, one Sunday evening, was walking on the downs, engaged in composing a congratulatory letter to a very dear friend so that he might have it on his birthday, when he heard a voice saying, "What, write to a dead man; write to a dead man!" No one was near him, and he tried to

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\* I. Proc. Soc., Ps. Res., Part xv. p. 17, 18.

think it was an illusion, and went on with his composition, when again he heard the voice saying more loudly than before, "What, write to a dead man; write to a *dead* man!" He now understood the meaning of the voice, but, nevertheless, sent the letter, and in reply received the expected intelligence that his friend was dead. Surely, in this case no living agent could have produced this auditory phantasm, which was strikingly calculated to impress the recipient with the idea that his friend was, though dead as regards the earthly life, in reality very much alive, while the spice of banter in the words would tend to show that death was by no means a melancholy event to the subject of it.

In view of the examples now given of phantasms appearing for a very definite purpose, and being in most cases perfectly adapted to produce the desired effect—examples which could be very largely increased from the rich storehouse of the publications of the Society for Psychical Research—the theory put forth by Mr. Myers, that phantasms of the dead are so vague and purposeless as to suggest mere "dead men's dreams" telepathically communicated to the living, seems to me a most extraordinary one. No doubt the range of these phenomena is very great, and in some cases there may be no purpose in the appearance so far as the percipient is concerned. But these are certainly not typical or by any means the best attested or the most numerous; and it seems to me to be a proof of the weakness of the telepathic theory that almost all the cases I have adduced, and many more of like import, have been passed by almost or quite unnoticed by those who support that view.

We have one more class of evidence to notice,—that of premonitions. These are of all kinds from those announcing very trivial events, to such as foretell accidents or death. They are not so frequent as other phantasms, but some of them are thoroughly well attested, and it is difficult to avoid the conclusion that they are realities, and that they are due, generally speaking, to the same agencies as objective veridical phantasms. One or two examples may be given.

A striking case is that of Mrs. Morrison, who was living in the Province of Wellesley, Malay Peninsula, in 1878, and one morning, when awake, heard a voice distinctly say, "If there is darkness at the eleventh hour, there will be death." On starting up in bed the same words were slowly and delib-

erately repeated. A week afterwards her little girl was taken seriously ill, and some days later, after a week of cloudless weather, a storm came on one morning, a few minutes before eleven, and the sky became black with clouds. At one o'clock the same day the child died.\* The unusual character of the warning renders this case a very remarkable one.

In another case, Miss R. F. Curtis, of London, dreams that she sees a lady in black who passes her, and is then seen lying on the road, with a crowd of people round her. Some think she is dead, some that she is not dead; and on asking her name, the dreamer is told she is Mrs. C——, a friend living on Clapham Common, who had not been heard of for some time. In the morning Miss Curtis tells her sister of her dream; and about a week afterwards, they hear that the day after the dream, Mrs. C—— had stumbled over a high curb-stone, and had fallen on the road very much hurt.

Still more extraordinary is the case of the Yorkshire vicar, who, when a young man of nineteen, was at Invercargill, in New Zealand, and there met a man he knew as a sailor on the ship he had come out in, and agreed to go with him and several others on an excursion to the island of Ruapuke, to stay a day or two for fishing and shooting. They were to start at four the next morning, in order to cross the bar with the high tide, and they agreed to call the vicar in time. He went to bed early with the fullest intention to go with them, and with no doubt or hesitation in his mind. The thing was settled. On his way upstairs to bed he seemed to hear a voice saying, "*Don't go with those men.*" There was no one near, but he asked, "Why not?" The voice, which seemed inside him, said with emphasis, "You are *not* to go"; and on further question these words were repeated. Then he asked, "How can I help it? They will call me up." And, most distinctly and emphatically, the same voice said, "*You must bolt your door.*" When he got to the room, he found there was a strong bolt to the door, which he had not remembered. At first he determined he would go, as he was accustomed to take his own way at all hazards. But he felt staggered, and had a feeling of mysterious peril, and after much hesitation finally bolted the door, and went to sleep. In the morning about three he was called, the door violently shaken and

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\* Proc. Soc. Ps. Res., Part XIII., p. 305.

kicked but though awake he did not speak, and finally the men went away cursing and shouting. About nine o'clock he went down to breakfast, and was at once asked if he had heard what had happened, and was then told that the boat with the party for Ruapuke had been upset on the bar, and *every one of them drowned*. Some of the bodies were washed up on the beach that day, and the others a day or two later, and he adds: "If I had been with them, I must have perished beyond a doubt."

Now what are we to say of this determined, warning voice that insisted on being heard and attended to? Who and what was the being that foresaw the catastrophe that was to happen, and saved the one that it could save? Du Prel would say that it was the second self, the unconscious *ego*, that produced this inner voice; but, as we have shown, this purely hypothetical explanation is both unintelligible and inconceivable, and explains nothing, since the suggested cause has not been proved to exist, nor can it be shown how the knowledge exhibited had been acquired. But phantasms of the dead, manifesting themselves in a way to prove their identity, or exhibiting knowledge which neither the percipient nor any conceivable living agent possesses, afford strong proof that the so-called dead still live, and are able in various ways to influence their friends in earth-life. We will, therefore, briefly summarize the evidence now adduced, and see how the spiritualistic theory gives a consistent and intelligible explanation of it.

It is evident that any general theory of phantasms must deal also with the various cases of "doubles," or undoubted phantasms of the living. The few examples of apparent voluntary production of these by a living person have been supposed to prove the actual production by them, or by their unconscious *egos*; but the difficulties in the way of this view have been already pointed out. In many cases there is no exercise of will, sometimes not even a thought directed to the place or person where, or to whom, the phantasm appears; and it is altogether irrational to ascribe the production of so marvellous an effect as, for example, a perfectly life-like phantasm of two persons, a carriage, and a horse, visible to three persons at different points of its progress through space (as described in my first article), to an agent who is totally unconscious of any agency in the matter. What is termed the agent, that

is the person whose "double" is produced, may be a *condition* towards the production of the phantasm without being the *cause*. I write a telegram to a friend a thousand miles away, and that friend receives my message in an hour or two. But the possibility of sending the message does not reside in me, but in a whole series of contributory agencies from the earliest inventors of the telegraph, down to the clerks who transmit and receive the message.

The clue to a true explanation of these very puzzling "doubles," as of all the other varied phenomena of phantasms and hauntings is, I believe, afforded by the following passage by one of the most thoughtful and experienced of modern spiritualists, Dr. Eugene Crowell:—

"I have frequently consulted my spirit friends upon this question, and have invariably been told by them that a spirit while in mortal form cannot for an instant leave it; were it to do so, death would at once ensue; and, that the appearance of one's self at another place from that in which the body at the moment is, is simply a personation by another spirit, who thus often accomplishes a purpose desired by his mortal friend, or some other useful purpose is accomplished by the personation. I am informed, and believe, that in cases of trance, where the subjects have supposed that their spirits have left their bodies, and visited the spheres, their minds have been psychologically impressed with views representing spiritual scenes, objects, and sounds, and many times these impressions are so apparently real and truthful that the reality itself barely exceeds these representations of it, but these are all subjective impressions, not actual experiences." \*

Accepting, then, as proved by the various classes of phantasms and the information conveyed by them, that the spirits of the so-called dead still live, and that some of them can, under special conditions, and in various ways, make their existence known to us, or influence us unconsciously to ourselves, let us see what reasonable explanation we can give of the cause and purpose of these phenomena.

In every case that passes beyond simple transference of a thought from one living person to another, it seems probable that other intelligences co-operate. There is much evidence to show that the continued association of spirits with mortals

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\* Primitive Christianity and Modern Spiritualism, Vol. II, p. 109.



is in many cases beneficial or pleasurable to the former, and if we remember the number of very commonplace people who are daily and yearly dying around us, we shall have a sufficient explanation of those trivial and commonplace yet veridical dreams and impressions which at first sight seem so unintelligible. The production of these dreams, impressions, and phantasms, may be a pleasurable exercise of the lower spiritual faculties, as agreeable to some spirits as billiards, chemical experiments, or practical jokes are to some mortals.

Many hauntings, on the other hand, seem to show one mode of the inevitable punishment of crime in the spirit world. The criminal is drawn by remorse or by some indefinable attraction, to haunt the place of his crime, and to continually reproduce or act over some incidents connected with it. It is true that the victim appears in haunted houses, as often as the criminal, but it does not at all follow that the victim is always there, unless he or she was a participator in the crime, or continued to indulge feelings of revenge against the actual criminal.

Again, if there be a spiritual world, if those whose existence on earth has come to an end still live, what is more natural than that many spirits should be distressed at the disbelief, or doubt, or misconception, that so widely prevail, with respect to a future life, and should use whatever power they possess to convince us of our error. What more natural than that they should wish, whenever possible, to give some message to their friends, if only to assure them that death is not the end, that they still live, and are not unhappy. Many facts seem to show us that the beautiful idea of guardian spirits is not a mere dream, but a frequent, perhaps universal reality. Thus will be explained the demon of Socrates, which always warned him against danger, and the various forms of advice, information, or premonition which so many persons receive. The numerous cases in which messages are given from those recently dead, in order to do some trivial act of justice or of kindness, are surely what we should expect; while the fact that although indications are frequently given of a crime having been committed, it is but rarely that the criminal is denounced, indicates, either that the feeling of revenge does not long persist, or that earthly modes of punishment are not approved of by the denizens of the spirit world.

The powers of communication of spirits with us, and ours of

receiving their communications, vary greatly. Some of us can only be influenced by ideas or impressions, which we think are altogether the product of our own minds. Others can be so strongly acted on that they feel an inexplicable emotion, leading to action beneficial to themselves or to others. In some cases, warning or information can be given through dreams, in others by waking vision. Some spirits have the power of producing visual, others audible hallucinations to certain persons. More rarely, and needing more special conditions, they can produce phantasms, which are audible or visible to all who may be present—real entities which give off light or sound waves, and thus act upon our senses like living beings or material objects. Still more rarely these phantasms are tangible as well as visual—real though temporary living forms, capable of acting like human beings, and of exerting considerable force on ordinary matter.

If we look upon these phenomena not as anything supernatural, but as the perfectly natural and orderly exercise of the faculties and powers of spiritual beings for the purpose of communicating with those still in the physical body, we shall find every objection answered, and every difficulty disappear. Nothing is more common than objections to the triviality or the partiality of the communications alleged to be from spirits. But the most trivial message or act, if such that no living person could have given or performed it, may give proof of the existence of other intelligences around us. And the partiality often displayed, one person being warned and saved, while others are left to die, is but an indication of the limited power of spirits to act upon us, combined with the limited receptivity of spirit influence on our part. In conclusion, I submit, that the brief review now given of the various classes of phantasms of the living and of the dead, demonstrates the inadequacy of all the explanations in which telepathy between living persons, or the agency of the unconscious *ego* are exclusively concerned, since these explanations are only capable of dealing with a small proportion of the cases that actually occur. Furthermore, I urge, that nothing less fundamental and far-reaching than the agency of disembodied intelligences acting in co-operation with our own powers of thought-transference and spiritual insight, can afford a rational and intelligible explanation of the whole range of the phenomena.





## NEW DISCOVERIES ON THE PLANET MARS.

BY CAMILLE FLAMMARION.

HOWEVER great the interest pertaining to things terrestrial, it is not unpleasant to rise from time to time a little higher, and live for a moment in contemplation of the immense perspective of infinity. The starry firmament, which surrounds us on all sides, is unceasingly observed by astronomers, and not unfrequently some new discovery causes us to advance one step further towards the solution of grand mysteries.

The childish notion that the planet on which we dwell is the only world inhabited — among the billions of globes which now exist, have heretofore existed, or may yet exist in the eternal immensity — is no longer held in our day, save by a few belated minds, who obstinately shut their eyes to the light of the sun. Our mediocre habitation has received from nature no special privileges; and every new investigation through the telescope shows that the other planets are, like our own, the seat of perpetual activity, in which all the physical forces are at work, giving birth to incessant and varied changes.

During the last few months \* astronomers have been specially interested in discussions relating to observations recently made in regard to the planet Mars, which has this year come within reach of our observation, — only 44,552,229 miles (or 71,700,000 kilometers) away. Our attention has been fixed upon this planet the more, because, during several consecutive years, certain extraordinary meteorological and climatological events (extraordinary to us!) have been noticeable upon its surface. What we see there resembles what we see on earth; but one feels that it is an entirely different land, with different elements, different forces, different inhabitants. We see continents illuminated by the sun, — the very same sun which sustains our lives also, — and these continents reflect towards us his light. There are darker seas, which absorb that light, and seem, from our

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\* This article was written October 22, 1890.

standpoint, like gray spots, more or less broken up; snows, which in winter accumulate around the pole, and melt gradually away in the spring and summer, in proportion as the solar heat rises higher; fogs, which extend over the plains and mask them from our view; fleeting clouds, carried away by the wind; sunny mornings; noons resplendent with light; vaporous evenings, falling asleep in the glories of twilight. All these pictures, observable in Mars, remind us of our earth, and suggest to us some sort of kinship between that world and ours; but if we look farther, the resemblance is presently transformed, and is even almost obliterated, by certain strange metamorphoses.

This essay is to be devoted to a summary of the investigations upon this subject,—a summary as complete, however, as the limits will permit,—a subject eminently interesting from a double point of view, scientific and philosophic; and we shall dwell principally upon observations made during the current year.

## I.

Assuredly we have all been greatly surprised, within the last few years, to see that the straight lines which cross the Martian continents, and bring all the seas into mutual communication, divide themselves into two parts at certain seasons. What are those rectilinear lines? Are they canals? This is the general belief; yet how can we explain the crossing of these watery currents by one another? There is an immense network of straight lines, more or less deep-colored. Can they be crevasses? They change in size. Are they vegetation? If so, it must be very rectilinear. Are they mists, or thick fogs? The explanation is difficult, at best; but it becomes still more so, when we see these enigmatical lines dividing themselves into two parts at certain seasons. No terrestrial phenomena can put us on the track of interpretation.

This year, moreover, not only have the canals been seen separating themselves into two parts, but lakes and seas have done the same. Take the following example.

The Lake of the Sun (Sol, or Soliel) is a small interior sea. It is very noticeable, and is situated at the intersection of the eighty-eighth longitudinal degree, with the twenty-fifth degree of south latitude. It measures seventeen degrees in length and fourteen in width, that is, 634 miles by 522



(1,020 by 840 kilometers). This means that its area is a little larger than that of France. Its form is almost circular, though often elongated from west to east. Well, this lake has been this year clearly seen divided into two distinct parts, as if by a sandbank or by a gigantic bridge.

One might think, for a moment, that a cloud had shadowed it; but this hypothesis cannot be maintained, inasmuch as so rectilinear, immovable, and durable a cloud would be a phenomenon in itself. Furthermore, exactly on each side of the separation can be seen, this year, a sort of elongation of the lake; and the canal, which empties into that basin, is likewise divided. The same is true of a little neighboring lake, which has been named Tithonius.

Besides, this great Lake of the Sun often shows itself united with another neighboring sea, and its surrounding waters, by three confluent, of which the two on the left have received the names of Ambrosia and of Nectar. Well, this year neither of these confluent has been visible except the one on the right; though four others have been discerned. This indeed changes the whole configuration of that great territory.

In order that our readers may obtain a correct idea of the changes observed, we will describe first the map of these regions, according to the best observations,—those of Signor Schiaparelli, Director of the Milan Observatory.

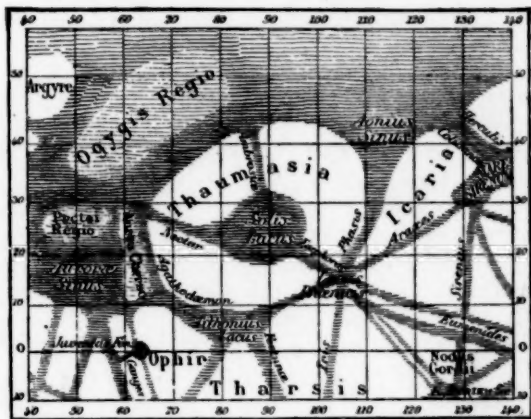


FIG. 1.—HABITUAL ASPECT OF THE LAKE OF THE SUN, OR TERBY SEA.

In 1877 the lake was circular. A confluent bound it on the right to the small lake called Phoenix. A second confluent, larger but paler, connected it above to the Austral Sea. The author examined this region with special care, because its appearance differed sensibly from the drawings made by Dawes, Lockyer, and Kaiser, in 1862 and 1864. The lake was then oval, elongated from east to west. In 1877, on the contrary, it was "perfectly circular, with the shore slightly undulating," though sometimes it seemed rather elongated in the vertical direction, from north to south. Moreover, in 1862 and 1864, a *large* confluent could be seen on the left, binding the lake to the neighboring ocean; whereas the Milan observer saw this place open, and discovered, in 1877, the little circle inscribed under the name of Fountain of Youth (Fons Juventæ).

Mars returns towards the earth in 1879, and is again observed. Evident changes are noted. The confluent of which we have spoken, and which was altogether invisible in 1877, is now perceptible, although very thin, and receives the name of Nectar Canal. The Aurea Cherso is enlarged. The Chrysorrhœas has changed its place; and instead of descending vertically along the eighty-sixth degree, it starts from the seventy-eighth to reunite at the seventy-second. The lake is slightly elongated towards Nectar Canal, which gives it the form of a pear, whose stem rises from fifteen to twenty degrees. The superior confluent is incomparably narrower than in 1877, and receives the name of Ambrosia. Lake Phoenix is greatly diminished. One searches in vain for the Fountain of Youth.

There are new studies and new transformations in 1881. The lake shows itself to be decidedly longer from east to west, and is concentric with the outline of Thammaria. Phoenix Lake has become the centre of numerous confluent. The Agathadæmon gives birth to a lake already indicated in 1877, but now so greatly developed that it receives the name of Lake Tithonius. This view agrees with those of 1862 and 1864. The Fountain of Youth, which had disappeared in 1879, has now returned. *Che il Lago del Sole cambi di forma e di grandezza*, writes the eminent observer, *è cosa indubitabile*. ("It is an undeniable fact that the Lake of the Sun changes from time to time in form and size.") Its coloration is very dull; and it is darker when the rotation

brings it to the edge of the disk, than when it passes the central meridian. This is doubtless due, as in many other cases, to the fact that the surrounding regions then become whiter.

A sort of river, the Araxes, running directly from the Sirenum Sea to Lake Phoenix, is seen to be straight, and no longer serpentine as in 1877.

Behold a lake, or something resembling a lake, which was oval in 1862 and 1881, and round in 1877! and all its surroundings have changed correspondingly.

The following observations have been made this year, 1890. The Lake of the Sun is split into two parts. Little Lake Tithonius is also divided. The great confluent of the lake, which we have already likened to the stem of a pear, projects from the northeast, instead of from the southeast. The Ambrosia inclines to the right of the meridian, instead of the left. The Chrysorrhoas Canal is double as far as the Lake of the Moon (Luna), and beyond, as far as the Acidalius Sea. Two new confluent, heretofore unknown, flow from the Lake of the Sun.

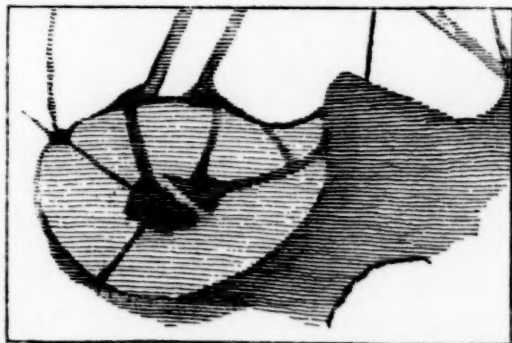


FIG. II. — THE LAKE OF THE SUN IN 1890. (SPLIT IN TWO.)

Such is the state of things; and it cannot be doubted that real, incontestable, and important changes are taking place on the surface of this neighboring world. We certainly do not think these events will deprive any one of sleep. Everybody might remain entirely indifferent to them. We might ignore them altogether. Even astronomers might not trouble themselves about these changes, or assume that it is too early to attempt any explanation thereof. It is always premature

to make any effort towards the solution of a problem; and it is far easier to play cards or take a walk.

The question, however, is not lacking in interest. It is indeed remarkable, that from our earth we can see what is going on in Mars; but it is not less curious to observe that this neighboring planet—though much resembling our own, by its general constitution, its atmosphere, its waters, its snows, its continents, its climates, its seasons—yet differs from it, in the most singular way, by its geographical configuration, its divided canals, and especially by its power of superficial transformation, and of changing divisions in lakes themselves—of lakes as large as the whole of France.

How can these variations be explained? The most simple hypothesis would be to imagine that the surface of Mars is flat and sandy; that its lakes and canals have no beds, so to speak, but are very shallow, having a thin layer of water, which may easily contract, expand, overflow, or even change its location, according to atmospheric circumstances, rains, and perhaps tides. The atmosphere may be light, and the evaporation and condensation of the waters correspondingly easy. We should thus behold, from this distance, inundations more or less vast and prolonged. The division this year of the Lake of the Sun, for example, would be due to a reduction or a displacement of the waters of that lake; and the separating line, in this case, might be regarded as an uncovered shoal.

More than one objection arises to this hypothesis. The first is, that it does not seem as if there could be less water in the lake, when the confluent are more numerous, and the one on the left is as large as an arm of the sea.

Is there displacement of water from the tides? This would ensure periodical changes, lasting only a few hours, and would not mark entire seasons, as is now the case.

Must we admit that the sandbank has risen above the level of the sea, and that the displacement of water is generally due to upheavals of the earthy bed? It is equally difficult to accept this interpretation: on the one hand, because such instability of the soil would be extraordinary; and on the other hand, because the upheavals of the soil would of necessity be usually rectilinear; and, finally, because the selfsame aspects are repeated, after intervals of several years. Besides, this hypothesis would not explain a capital

fact (one might say the *characteristic* fact) of the changes observable in Mars,—namely, the tendency to division into halves.

Let us proceed to the examination of other observations. A strait running from the triangular Hourglass (Sablier) Sea, and extending to Meridian Bay, is generally seen to be winding, and of a uniform gray color. This year the topographical aspect is entirely changed. Instead of being serpentine, the shore line is now straight, but double; and it is divided by a white longitudinal furrow. Meridian Bay, as usual, is also doubled; and so is a little, inferior lake.

It is this duplicating tendency which it specially behooves us to explain. If these duplicate canals are the two sides of a strip of water,—as one might be led to think, by the comparative aspect of this strait, which has many a time been seen more clearly in the central line than along the shores,—it remains for us to explain how this transformation takes place. The assumption that a sandbank rises thus seems rather bold; and, moreover, such an upheaval would cause the water on both sides to overflow, without necessarily giving rise to rectilinear shores.

## II.

Let us, therefore, admit that it is extremely difficult, not to say impossible, to account for these transformations in Mars, by reference to the natural forces known to us. Let us also remember that we are not acquainted with all the natural forces, and that the nearest things often remain unknown.

Inhabitants of the tropical regions, who visit Paris for the first time in winter, and who have never before seen leafless trees, or snow, are amazed at our climate. It is an entirely new experience for them to take into their hands solidified water of such dazzling transparency; and they hesitate, for a moment, to believe that these black skeletons of trees will, a few months later, be clothed with luxuriant foliage.

Let us imagine the case of an inhabitant of Venus, who has never seen any snow. Would he be able, in telescopically observing our earth, to understand the meaning of the white spots covering our poles? Certainly not. We, in-

habitants of the earth, can comprehend the significance of the snows in Mars; but we cannot explain these variations of the water-line, these displacements of water, these rectilinear canals, and their curious divisions, because we have nothing similar on our own planet.

It may be admitted that inundations are the cause of the widening of the shores, such as have been observed along Hourglass Sea, and on the Lybia, below the Flammarion Sea. As much may be admitted about the regions which from time to time become a little darker; but the displacements and transformations seem of a different order.

The straight lines do not seem natural to us inhabitants of the earth. Besides, they bisect one another at all sorts of angles. Never have earth's rivers been seen crossing each other in this way. Shall we admit that the soil is perfectly level, that these waters have therefore no proper course or inclination, and that this watery network is somehow connected with irrigating canals? All these watercourses vary so strangely, both in aspect and size, that we remain confounded; and although the tint of the courses is often as dark as that of the seas, though reddish, rather than bluish or greenish, the notion of these being real currents of water gradually loses all semblance to reality.

For example, in 1877 Hourglass Sea was very narrow, and none of the canals were duplicated. One, in particular, was observed, to which the name of Pison was given. In 1879 a larger sea, the Nile, seems to have changed its course, and two canals are seen, where there was only one. In 1882 there were new changes in the course of the Nile, with division and duplication. The two canals of 1879 showed themselves likewise as divided and duplicated; and five others were discovered. In 1888 there were more changes. The Euphrates, the Pison, the Nile (now called Protonilus) showed themselves duplicated, as in 1882; and new separations were seen, in Astaboras and another canal. In 1890 the Euphrates and the Pison show themselves divided. A portion of the Protonilus is also divided, but not the Astaboras. A canal has disappeared; and, as we have already said, the superior strait is divided in the direction of its length.

It is very difficult to admit that these straight, yet variable lines are really water. It is true that they all, without



exception, have, at their two extremities, a sea, a lake, or a canal, and that consequently water cannot be foreign to them. Can they have originated in geometrical ravines, due to some natural process in the formation of Mars? Perhaps so; but crevasses alone, even when filled with water, would not account for the variations observed, concerning which we must give a few more details.

The canals are at times completely hidden from our sight, even under the best conditions for observation. This seems to happen especially towards the southern solstice of the planet.

They differ greatly in size. For instance, the Nilosyrtris measures sometimes five degrees, or 186 1-2 miles (300 kilometers); while at other times it measures less than one degree, or 37 1-4 miles (60 kilometers).

The length of some canals is immense, measuring more than one-fourth of the meridian, — that is, more than 3,355 1-2 miles (5,400 kilometers).

All these canals change in size. All, or nearly all, divide into two parts. This process of duplication is most wonderful. In two days, in twenty-four hours, and even in less time, the transformation occurs simultaneously throughout the whole length of the canal. When the transformation is to take place, the canal, until then single and clear, like a black line, becomes nebulous and grows wider. This nebulosity is then transformed into two straight parallel lines, like a multitude of scattered soldiers, ranging themselves suddenly into two columns at a given signal. The distance between the two parallel canals, resulting from this new distribution and arrangement, averages six degrees, or 223 3-4 miles (360 kilometers).

It is sometimes only of three degrees, or 111 3-4 miles (180 kilometers), for small and very narrow canals. Sometimes, on the contrary, the intervening distance rises to ten or twenty degrees, and even more; that is to say, to 372 3-4, or 435 miles (600 or 700 kilometers), or even more, for the longest and widest canals.

When a double canal is crossed transversely by another canal, and one of the streams is larger and more intense on one side of the intersection, the other band will appear so likewise.

If one stream is very meagre, and hardly visible on one

side of the intersection, it will be the same with the other. Thus it happens, at times, that one of the two streams is not seen at all, and the canal then appears to be double on one side, and single on the other. The transverse canal consequently acts on the former.

Sometimes the two lines are regular, and their axes perfectly parallel, but the whole canal is surrounded by a sort of penumbra. Commonly, however, the two lines are marked with absolute regularity and geometric clearness. Moreover, the doubling of a canal causes any irregularities to disappear, which might have existed while the canal was single; and other canals, though slightly curved, divide into perfectly straight branches, as happened to the Jamuna, in 1882, and to the Boreasyptis, in 1888.

The aspect of an offshoot often changes, according to certain epochs. In 1882, for instance, two bands of the Euphrates showed a slight convergence towards the north; while, in 1888, the same two bands were equidistant at all points. The interval between the two bands varies with their width, according to years. At the points of intersection, where single or double canals meet, is often seen a black spot, resembling a lake. The aspect of these knots changes in a manner similar to the variation of the canal. When all the canals ending in a knot are obscure, the knot also is obscure; or, rather, it appears like a light and diffused shadow. The appearance of canals, single or double, produces a confused spot, which sometimes doubles in the direction of the strongest canal. For example, in 1881 the Protonilus Canal, which is bisected by the Euphrates, was double and thick, and the intersecting lake took the same form.

### III.

If we admit the accuracy of these observations,—and it seems difficult to do otherwise,—we must conclude that they indicate great variability. The productive cause of these offshoots operates not only along the canals, but also upon watery patches of various forms, provided they are not too vast.

This cause seems to extend its power even to the permanent seas. Of this we have had a new proof this year, in the strait called Herschel Second. The tendency to bisect dark spaces with yellow bands manifests itself also in the

production of regular isthmuses, which form in certain parts of the northern hemisphere of the planet.

These variations are connected with the seasons. As an example, let us proceed to the consideration of those observed by Signor Schiaparelli along the large canal, Hydraotes-Nilus.

The following is the history of the duplication process in this large canal. In 1879 the vernal equinox took place in Mars on January 22. A month before, on December 21, the Lake of the Moon became darker and larger. Two days after this, on December 23, it took the form of a trapeze, composed of four black bands, in the midst of which was the island, well defined, and of an ordinary yellow color. Meanwhile the Nile remained single; but on December 26 that also became double, the two lines being perfectly equal, but not so wide and dark as the two strips of the Lake of the Moon.

The observations relative to this process of duplication were resumed on the return of the planet to our neighborhood in 1881. That year the vernal equinox took place on December 9. The divisions of the Lake of the Moon and the Ganges were well defined, while the Nile was single. On January 11 the Nile also became double; and on January 13 the same division was perceptible in the Ganges. On January 19 the Lake of the Moon again assumed the trapezoid form, with the yellow island in the centre. On February 23 one part of Hydraotes was double, while the other part remained single.

These curious observations were again pursued in 1886. On March 29 Hydraotes and Nile were clearly seen to be double, each strip being very large,—about four degrees, or 149 1-8 miles (240 kilometers), and were reddish in color, darker than the surrounding yellow background. The interval between them was from nine to ten degrees. The northern solstice occurred on March 31. These variations evinced a regularity in sequence. They were, moreover, certain and incontrovertible.

Such are the facts recently observed in the planet Mars,—facts concerning which our readers are now precisely informed. These are not imaginary conceptions, but come from trustworthy observations. Our explanations may seem rather technical, and devoid of ornamentation; but they will be, for that very reason, more intrinsically valuable.

Let us now admit that it is easier to describe the phenom-

ena than to explain them; for we have nothing similar upon our globe.

Water, the movable element *par excellence*, must play an important role in these changes. Water certainly exists in Mars, for this is proved by the analysis in the solar spectrum; and we can see it in the form of clouds.

Moreover, photography has this year detected in Mars a snowstorm, which in twenty-four hours covered a territory larger than the United States. Mr. Pickering has, among other things, taken fourteen Martian photographs, from Mount Wilson, California. Seven of them were taken on April 9, between 22 h. 56 m. and 23 h. 41 m., average Greenwich time, and the other seven were taken on the following night, between 23 h. 20 m., and 23 h. 32 m. It is, therefore, the same face of the planet which is pictured in these two cases. On each proof can be seen perfectly distinct geographical configurations; but the white polar spot, which marks the southern pole, is a great deal vaster in the second night's pictures than in the first night's. We have long been aware that these polar spots vary with the Martian seasons, diminishing in summer and increasing in winter; but this is the first time that the precise date of any considerable extension of these snows has been registered. The southern border of the planet was at eighty-five degrees latitude. The snow extended, on one side, as far as the terminus, which was at seventy degrees longitude, and along the thirtieth parallel of latitude it extended as far as the one hundred and tenth degree of longitude; and then, from the one hundred and forty-fifth degree of longitude, and the forty-fifth degree of latitude, as far as the border of the planet. It must likewise have covered part of the other hemisphere, invisible to us. "The visible extent of these snows," writes Mr. Pickering, "was really immense, since it covered an area almost as large as the United States."

During the forenoon of April 9 these polar snows were feebly marked, as if they were veiled by mist, or by small and separate bodies, too feeble to be reproduced individually by the photograph; but on April 10 the whole region was illuminated, the scene equalling in splendor the snows of our North Pole. The date of this event corresponds with the end of the winter season of the southern hemisphere of Mars, which corresponds to the middle of our February.

The explanation of these changes is easily furnished by terrestrial analogies. We have witnessed an immense snow-fall in the southern hemisphere of Mars. These aspects are so evident upon each of the fourteen photographs, that the mere sight thereof enables us to indorse each with its proper date.

We might perhaps imagine that water exists in Mars in a fifth state, intermediate between mist and fluid. On our world water presents itself to us in four greatly differing conditions, — the solid states of ice and snow, which also differ from each other; the liquid state common in the average temperature and atmospheric pressure; the vesicular state of mist and clouds; and the invisible state of transparent vapor. We can imagine a fifth form, the viscous, which would account for these variable Martian formations, whose duration may last for several months.

But why these straight lines, and why these duplications? We have not yet ascertained, but we are not forbidden to continue the search. The science of physical astronomy has, for the last few years, made such rapid progress, that things now appear real which, less than a quarter of a century ago, were considered merely as so many dreams. On the one hand, optical instruments have been considerably improved. We do not mean merely that certain gigantic glasses have far surpassed their predecessors, but that middle-sized instruments have gained both in clearness and definitive power.

On the other hand, observers have entered the field of minute investigation, with an energetic patience and untiring perseverance which have led them to the discovery of secrets of Nature heretofore unknown. Among these studies, that of the constitution of the worlds composing our planetary system has been the goal of the happiest researches; and, among the different worlds of our solar archipelago, the planet Mars has allowed the terrestrial eye to intimately penetrate its organization, and to detect some of the movements taking place on its surface.

We have wished, in this paper, to present to those of our readers who interest themselves in the wonders of the heavens, an exposé of certain unforeseen facts which have lately come to our knowledge. In transporting ourselves for an instant to a neighboring world, we enter into a more direct relation with Nature, in whose bosom all worlds and beings move, and

we gain a better knowledge of the universe of which we are an integral part.

#### IV.

Let us recall, in closing, the special conditions of Mars, in regard to habitability.

Our readers are aware that Mars circles next beyond the earth, in the order of planetary distance from the sun. Our earth is placed at a distance of 91,962,760 miles (148,000,000 kilometers) from the sun, about which it effects a revolution once in 365 1-4 days, with the rapidity of 1,598,163 3-4 miles (2,572,000 kilometers) per day. Mars revolves at a distance of 139,808,250 miles (225,000,000 kilometers); and his years are longer than ours, measuring 687 days each, while he swings along at a velocity of 1,287,478 3-4 miles, (2,072,000 kilometers) per day. The average distance, therefore, between these two orbits, of Mars and our world, is 47,845, 490 miles (77,000,000 kilometers). This is the distance at which the planet passes, when it reaches the vicinity of our own planet. Their orbits not being exactly circular, but elliptic, the minimum distance between them varies. It may go down to 34,175,350 miles (55,000,000 kilometers), or it may rise to 62,137,000 miles (100,000,000 kilometers). Even in its closest proximity, the planet still appears to be sixty-three times smaller than the moon. Therefore, a telescope, with a magnifying power of sixty-three diameters, makes Mars appear to us as if he enjoyed the same dimensions the moon presents to the naked human eye. A magnifying power of six hundred and thirty shows Mars to us as if he were ten times larger in diameter than our satellite appears, when seen with the naked eye.

Mars is smaller than the planet we inhabit. If we represent the diameter of the earth as one hundred, that of Mars must be represented by fifty-three, or a little more than half the diameter of the earth; and this diameter is 4,256 1-2 miles (6,850 kilometers). The circumference of Mars is 13,359 1-2 miles (21,500 kilometers). This is about twice the circumference of the moon, whose diameter can be expressed, according to the preceding proportion, as twenty-seven, and is 2,159 1-4 miles (3,475 kilometers).

Mars turns on its axis once in twenty-four hours, thirty-



seven minutes, and twenty-three seconds, and numbers. in consequence of this rotation, 668 days in one of its years.

Its seasons are like ours in temperature, the inclination of the planet's axis being almost the same as ours ( $24^{\circ} 52'$ ), but each season is about twice as long as ours. Spring lasts about 191 days; summer, 181; autumn, 149; and winter, 147. Its atmosphere appears to be similar to that we breathe. Clouds, rain, snow, ice, mist, fine days and foul, succeed one another very much as they do here.

Mars, however, is a great deal lighter than the earth. If we represent the weight of the earth by one hundred, that of Mars would be eleven. That is to say, Mars is about one-tenth as heavy as our globe. The average density of the materials whereof Mars is composed is seventy-one, according to the proportion above adopted, the density of our world's materials being represented by one hundred. The weight of substances on the surface of Mars is correspondingly less than the weight of substances on the earth, and is expressed by 37.6. That is to say, one kilogram here would weigh only 376 grams there; and a man weighing 70 kilograms (140 pounds) on the earth would weigh only 26 kilograms (52 pounds) in Mars.

Let us add, in order to complete this general survey, that Mars wanders in space attended by two smaller satellites, whose diameters do not seem greater than the breadth of the city of Paris, from six to eight miles. These satellites revolve very rapidly around their planet, the one nearest in seven hours, thirty-nine minutes, fifteen seconds; and the other in thirty hours, seventeen minutes, and fifty-four seconds. To the eyes of the inhabitants of Mars, their first moon rises in the west and sets in the east.

According to the totality of investigations into the physical constitution of Mars, that planet actually appears to be, like our own, the seat of great activity. Mars resembles our world in many respects, though differing from it in others. Mars is older than our world, yet is smaller and less important in bulk. It must have passed through its stages of development more rapidly than our globe, and is doubtless farther advanced in its progressive vitality. Its waters appear to be already partially absorbed. Its mountains have perhaps been destroyed, razed by cyclic

periods of disintegration, through the influence of rain, frost, wind, and tempest. Yet the unceasing activity which it betrays, seems to establish a sort of planetary kinship between that world and ours; and the studiously minute attention, bestowed upon everything discoverable on its surface, will be, for the astronomer and thinker, an inexhaustible source of satisfaction and emotion, and probably of surprise. Optical instruments will rise from perfection unto perfection, and the perseverance of astronomical observers will be rewarded by unexpected discoveries. Who can forecast the progress which the future of science holds in reserve for the conquest of the sidereal universe?

[The author of this valuable paper adds the following personal paragraphs.—Ed.]

*Postscript*: I have continued my observations on Mars up to the moment of mailing this article, October 22. This planet, which, on June 5, swept by us at a distance of only 44,552,229 miles (71,700,000 kilometers), is now 105,011,530 miles (169,000,000 kilometers) away from the earth,—that is to say, more than twice as far off, and its disk appears less than half as great in diameter. Nevertheless, I have been able to observe, on almost every clear day, the snow at the two Martian poles. The snow at the south pole is more extensive than at the north. The north pole has, however, already entered its winter season, having passed its autumnal equinox on July 3. The south pole has entered its summer season, but its snows are far from melting.

In passing, let us say that we know much more about the poles of Mars than we do of the earth's. Our poles, no man has ever seen.

The best time to observe Mars is in the half-hour preceding sunset,—that is, while there is yet daylight. One can then distinguish very clearly the wondrous Martian waters, and that distant world turning slowly before his very eyes. At one longitudinal degree in Mars, it is high noon. Over another degree, on the left, the sun is already setting; while over still another, at the right, the sun is just rising. One is irresistibly compelled to ask himself, What can be going on over there?

## "THE FARMER, THE INVESTOR, AND THE RAILWAY."

BY C. WOOD DAVIS.

AGRICULTURE having been the first industry of settled life, we may assume that the farmer has pursued his calling since the dawn of civilization; yet, necessary as have been such labors, he has borne many burdens from which his brothers have been exempt, doubtless owing to the difficulty experienced in forming combinations with his fellows for concerted action, while those representing aggregates of capital, being comparatively few in numbers, easily effect such combinations. This is especially true of the present era, and of those controlling the great mass of capital represented by the railways of the country, nominally amounting to \$9,369,000,000, and appearing to equal 60 per cent. while being not over 30 per cent. of the capital invested in farms, yet, the influence exerted upon economic and other questions by railway owners and farmers is in an inverse ratio to their respective numbers and the magnitude of their investments.

One is a compact force, disciplined, alert, living in the midst of the greatest activities; the other exceedingly more numerous, undisciplined, leading isolated lives and with few incentives to quickening thought.

Those familiar with the history of the last sixty years will not question the great benefits resulting from the construction of railways, or grudge the men who have carried forward these great undertakings a rich reward.

By the aid of the railway the wilderness has been made productive, countless farms brought within reach of the great markets, mines opened, mills, factories, and forges built, villages, towns, and cities brought into existence, and populous States carried to a higher development than would have been possible in centuries without such aids. Such are but a part of the beneficent results flowing from the construction of the railway.

While the builders of the railway have been exploiting a continent and piling up the greatest fortunes ever known, the farmer has taken an unproductive wilderness and literally hewn his way through the great forests which clothed seaboard and central region to the open prairie, there developing the most productive of States, continued his toilsome march up the arid slopes, scaled the mountains and planted orchard, vineyard, and farm by the shores of the Western Ocean.

His labors have enabled the nation to flood the markets with a plethora of bread, meat, and fibre, to meet the enormous expenditure of a devastating war, to repair the losses and havoc of those bloody days, and then to turn the balance of trade in our favor.

Willingly has the farmer performed this labor, expecting to share in the prosperity of the country, yet not always content with his part of the rewards, and coming to believe that those controlling the carriage of his products were exacting as toll more than a just proportion thereof. He has seen the carrier yearly adding to his property, building new lines from the tolls collected on the old, increasing his wealth and power, and leaving a constantly lessening proportion of the proceeds arising from the sale of farm products, to the grower. As population has increased, railway property has grown in relative value, as has the power of those controlling it, and this increase has been very largely made from revenues derived from tolls levied to pay interest and dividends on the water in the bonds and shares, hence made at the expense of railway users, a large part of whom are farmers.

All are fairly prosperous except such as are engaged in the basic industry of civilization, and the one cloud in the industrial horizon is the unsatisfactory condition of a large part of an agricultural population numbering some 25,000,000, and the railway is chargeable with so much of this as results from the exaction of unjust tolls, and this inquiry is instituted for the purpose of ascertaining if the complaints, as to the unreasonableness of such charges, are well grounded.

The highest tribunals hold that railway companies are public trusts, and can exercise the power to enter upon and take private property solely in their public character; and that the exercise of such exceptional power can be defended only upon the ground that the good of the public can best be subserved by a corporation under obligation to

treat all justly in rendering services which each citizen cannot perform for himself; that the State could perform the functions delegated to railway corporations, which are trusts organized for the service of the public and charged with remuneration for the private capital employed; that the corporations thus endowed must provide all needed facilities for conducting speedily the business for which they were created; and that the charge for the services rendered shall be no more than just and reasonable; and the Federal courts have not hesitated to determine what was a just and reasonable charge.

The Courts hold that rates fixed by the State are *prima facie* reasonable, and while railway companies cannot be barred from showing the unremunerative character of such rates, they can only do so by disclosing—in addition to the cost of maintenance and operation—the exact cost of the plant employed, and that in arriving at such cost account can be taken only of monies actually expended in construction and equipment. Railway companies have evinced no desire to make disclosures of this character, although it would be easy in this way to show that the schedule of rates established by the State was unremunerative, if such was the case.

The cost of maintaining and operating any given railway is readily ascertainable, and it should be equally easy to determine its cost, but such a procedure is surrounded with grave difficulties.—difficulties growing out of syndicates and construction companies, the manufacture of securities, of bond and stock waterings, the purchase and construction of branch lines at low cost, and unloading upon the stockholders at high cost. Stock and scrip dividends, bonus \* of stock to purchaser of bonds, bonds sold to pay unearned dividends that much stock may be unloaded at high prices à la Wabash, the building of branch lines at low cost, capitalizing at high cost, and covering resulting profits into the treasury of the parent company to be distributed as dividends, and forever taxing the railway user to pay interest and dividends on the profits thus enjoyed, as well as by a thousand and one other shady devices by which water is added to the basic power of levying tolls and increasing the amount upon which the public is expected to furnish the means of paying interest and dividends.

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\*The Santa Fe and other companies have given as a bonus as much as ten shares of stock with each \$1,000 bond sold.

The cost of the railway is known only to its managers, and rarely to them, as the constructors but seldom retain the management, and railway accounts are manipulated in numberless peculiar ways for the sophistication of investors. For instance, on page 184 of the 1889 report, of the Kansas R. R. Commissioners, there is appended to the statement of bonded indebtedness, made by the Atchison, Topeka & Santa Fé, this note: "The early records of the Company are very incomplete, and it is impossible to tell, with any accuracy, the amount realized from the issue of these bonds," *i. e.*, \$14,061,500 of first mortgage, land grant, and consolidated bonds. Another typical case is that of a railway company in whose service was the writer, and which built a costly line of passenger steamers for lake service; but, by reason of the building of railways north and south of the lake, the operation of the line became unprofitable, the steamers were dismantled, engines sold, and the great sum they represented, dropped from the annual report of the company, without a word of explanation.

Managers dealing thus with stockholders, are not likely to be more frank with the public. Indeed the cost of the railway, and the manipulations of such cost, are of the professional secrets which are employed to defraud railway users and investors, and a case or two in point may not be uninteresting, as showing some of the processes adopted in the manufacture and marketing of stocks and bonds, which are so frequently but evidences of corporate fraud, rather than ownership.

An illustration of the ease with which investor and user are alike plundered, is found in the case of a corporation controlling a valuable dividend-paying property, which a second company parallel with expectation of profits only from construction, and by forcing a sale,—eventually effected,—to the older company, the result being the trebling of railway capital, without an increase of traffic.

Another form of corporate fraud is the payment of unearned dividends from the proceeds of bonds sold, thus adding to the capitalization, and necessitating the collection of unjust tolls to pay interest. These fraudulent payments are often made to enable the management to foist upon the public immense issues of worthless shares, such dividends being continued as long as bonds can be sold, and a market



found for the stock, and when one of these bubbles is about to burst, the manipulators make further vast profits, by selling "short," and then having disclosures made of the hopeless condition of the corporate finances.

Yet another form of corporate fraud is the purchase or construction of cheap branch lines, and selling them at two, three, or four times their cost to the Company of whose interests the profiting parties are the trustees. Sometimes these lines are consolidated with that of the parent company and new issues of securities made to cover the added mileage, while in other cases the old Company enables the schemers to sell immense issues of the shares and bonds of the auxiliary line at high prices by guaranteeing the bonds of the latter and leasing its road at an exorbitant rental. Loaded down in this way the old Company frequently ceases to pay dividends.

Again the parent Company resolves itself into a construction Company and covers into its treasury the profits arising from the construction of cheap branches. For instance, it is shown on page 391 of the 1889 report of the Kansas R. R. Commissioners that the St. Louis and San Francisco Railway Company derived a profit of \$67,871 from the construction of ten and one half miles of road that should not have cost over \$10,000 per mile, but which, with this profit added and stock issued for a nominal consideration, is capitalized for \$28,845 per mile. This Company has built many hundred miles in recent years, and construction profits have aided in the payment of dividends on preferred stock, while providing a basis for levying, for all time, tolls to pay interest and dividends on the bonds and stock representing the profits divided. Thus, the greater the profits from construction, the greater the sums which can hereafter be extorted from the user of the railway.

\* Poor's Manual shows that to make contemplated extensions the stock of the Missouri Pacific was, during 1886-87, increased \$15,000,000, and the funded debt \$14,376,000, and while the capitalization of the parent company was thus increased \$29,379,000,† the lines built or purchased were capitalized from \$8,000 to \$52,000 per mile, the result of such multiple capitalization being to add an immense amount

\* "Poor's Manual" is a compendium of such financial and traffic statements as the railway companies prepare for publication.

† August, 1890 — It is now stated that the Missouri Pacific has added \$20,000,000 to its capitalization.

of water to old as well as new issues. There are some very instructive phases of the construction of this new mileage. For instance the 310 miles of the auxiliary Fort Scott, Wichita & Western is shown by Mr. Poor to have cost \$4,666,000; the funded debt is shown by Kansas R. R. Commission to be \$5,666,000, and Mr. Poor shows that \$4,666,000 of such bonds are deposited with the Union Trust Company to secure \$4,666,000 of Missouri Pacific trust mortgage bonds issued to provide the \$4,666,000, which the road is said to have cost. Has the user of this railway a right to ask what became of the other \$1,000,000 of mortgage bonds and the \$7,000,000 of capital stock upon which rates are based, and which make up a capitalization of \$8,000,000 in excess of cost, and what was the consideration therefore?

In the case of the 411 miles of the Missouri Pacific's Denver, M. & A. line, Mr. Poor shows the cost to have been \$4,920,000, and Kansas report shows bonded debt to be \$6,561,000, the first mortgage bonds exceeding the cost by \$1,641,000, and the entire capitalization being \$8,202,000 in excess of cost, a large part of which cost was borne by the municipalities along the line. Like conditions obtain with all Missouri Pacific lines built of late years except two short ones not yet mortgaged.

Another mode of collecting excessive tolls and defrauding the public, is that practised by the subsidized Pacific lines in paying \$900,000 per annum to the Pacific Mail Steamship Company to forego competition, and then charging the public two or three times this sum to recoup themselves for such illegal diversion of corporate funds.

A unique case is that of an Ohio corporation, where the men who afterwards became the directors and managers gave their notes to certain bankers for money borrowed for the purpose of buying the shares which were to give them control of the corporation, and, having by this means secured control, applied—in whole or in part—to the payment of such notes, the first mortgage bonds of the company to the amount of \$8,000,000, although such bonds had, in compliance with the requirements of the statutes of Ohio, been issued for the express purpose of equipments, double tracks, and other betterments.\*

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\*See the seventh annual report of the Columbus, Hocking Valley & Toledo Railway Company.

Many auxiliary lines have been built at costs ranging from \$8,000 to \$15,000 per mile, and capitalized at two, three, four, and even five times their cost, as in the case of the 107 miles of the Kansas Midland, costing, including a small equipment, but \$10,200 per mile, of which 30 per cent. was furnished by the municipalities along its line, yet with construction profits and other devices this road shows a capitalization of \$53,000 per mile.

Or take the 1055 miles in Kansas of the Chicago, Kansas & Nebraska built by the Chicago, Rock Island & Pacific in much the same way and capitalized for \$38,000 per mile. Kansas municipalities aided to the extent of \$2,500 per mile in building this road, receiving the stock of the company in exchange for municipal bonds; now, however, foreclosure proceedings are pending in the interest of and at the procurement of the parent company (which owns, practically, all the bonds and stock of the auxiliary line except the stock issued to the municipalities), whereby the municipalities are to be despoiled of this \$2,500,000.

This is no uncommon device for plundering the farmer and other tax-payers; and railway presidents, directors, and managers, who would scorn to put their hands in the pocket of the farmer and abstract a (single) silver dollar, rarely hesitate when, by the devices described, they can take from the same farmer and his congeners a lump sum of \$2,500,000, and the successful workers of such schemes, by one and the same act, acquire vast sums and a reputation for great financial ability.

Another type is found in the Marion and McPherson line of the Atchison, Topeka & Santa Fé,\* built largely from old and much worn material, and originally capitalized for \$28,000 per mile, being more than three times its cost. Under the recent re-organization of the Santa Fé, each mile represents a much larger sum; but how much larger I am unable to ascertain from the accounting officers of that company, to whom application was made for definite information.

Other Santa Fé lines show peculiar phases of railway administration. For instance, the Santa Fé, jointly with the St. Louis & San Francisco, built the Wichita & Western, extending 125 miles through a sparsely settled district and

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\* Known as the "Atchison" in New England and as the "Santa Fe" in the West.

not paying operating expenses, yet the Santa Fé, although having another and parallel line — the Southern Kansas — less than twenty-four miles south of the Wichita & Western, doubly paralleled itself by building a third line between the two, this third line, for one hundred miles, being eight to fourteen miles from the Wichita & Western on the north, and, for seventy miles, but ten to sixteen from the Southern Kansas on the south.

In this way has money been wasted in construction, the farmer unnecessarily burdened, the parent company loaded with an immense unproductive mileage, and rendered unable to pay fixed charges, and thousands of those investing in its securities reduced to sore straits, the reason for all of which is probably to be found in the profits — private or corporate — growing out of construction.

Perhaps the Santa Fé affords as fair an illustration as can be found of the ease with which twelve men, sitting in directors' chairs, can issue an edict for the creation of an hundred million or more of fiat property, the only evidence of the existence of which is found in reams of paper, and affording additional evidence of the great and growing utility of printers' ink as an instrument of advanced civilization. By this simple process and without any addition to the property of the corporation, the liabilities of the Santa Fé have been increased more than \$100,000,000, and while rates of interest may have been scaled down, the total of interest and principal have been scaled up. When an individual or firm fails, creditors usually accept large reductions of principal in adjustment; but when a railway company like the Santa Fé fails, they insist on doubling the principal and increasing the total of interest.

Although the earnings of the Santa Fé, in 1888, amounted to \$2,944,529 less than operating expenses and fixed charges, the managers paid an unearned dividend of \$2,625,000, which, with other enormous additions to the liabilities, are to be an endless burden upon railway users and the warrant for the exaction of unjust tolls.

The Santa Fé's recently acquired control of the St. Louis & San Francisco lines,—which are to be operated as a distinct property—is a remarkable instance of the fiat process of multiplying securities without the addition of one dollar's worth to the world's stock of property.

The St. Louis & San Francisco controlled 1329\* miles of railway, capitalized for the enormous sum of \$70,402,800, being \$52,200 per mile. The Santa Fé acquired control of this property by issuing \$26,285,175 of new Santa Fé stock, not to retire the stock of the "Frisco" but to buy it and place it in the treasury of the Santa Fé and apply† such dividends as may accrue to the payment of current Santa Fé liabilities.

The result to the railway user will be that, whereas the "Frisco" property has been represented by \$70,402,800 of "Frisco" and auxiliary stocks and bonds, it is now represented by that sum plus \$26,285,175 of Santa Fé stock, which is an addition of fictitious capital upon which the user is expected to furnish revenue, and the owners of Santa Fé shares have that amount of water injected into their holdings.

‡ The Santa Fé holds 741,129½ shares, of the par value of \$74,112,950, of stock of auxiliary lines built wholly from land grants, municipal aid, and proceeds of bonds sold, and for this immense number of shares the only consideration—as shown by the Santa Fé ledger—was \$4,029, or a fraction over half of one cent a share. For 663,306½ of these shares, of the par value of \$66,330,650, the only consideration shown is \$15.00, being at the rate of 44<sup>22</sup>/<sub>100</sub> shares of the par value of \$4,422.00 for one cent. Such is the stuff which passes current as railway securities and on which the railway user is taxed to pay dividends!

The Santa Fé affords a most instructive example of what may be accomplished in the way of multiplying securities by the hoodooing§ of accounts, by reckless construction, the payment of stock dividends (\$18,000,000), the giving of vast quantities of stock to the purchasers of bonds, the payment of unearned dividends and the creation of \$100,000,000 and more of fiat securities at one or two sittings.

The seventy miles of the Columbus and Cincinnati Midland, built at a cost of about \$17,000 per mile—of which some \$1,500 per mile was donated by the people along its line—is capitalized at \$57,000 per mile and earns nearly twelve per cent. on the money furnished by its builders, yet

\*Include such lines as the Kansas Midland, etc., built at costs ranging from \$10,000 to \$15,000 per mile.

†Financial Chronicle of May 31, 1890.

‡Poor's Manual, 1889, page 723.

§Ante, page 5.

appears to earn but three per cent., while in its immense fictitious capital the foundation is laid for further exactions.

The enormous profits accruing from the operation of the construction company, and the unjust tax thereby forever imposed upon the public, is exemplified in the case of the "Credit Mobilier" and other construction devices connected with the building of the various Pacific lines, out of which grew no little corruption of legislators, the ruin, politically, of promising statesmen, and the amassing of so many great fortunes, typified in the case of the four men who built the Central Pacific and whose united worldly possessions in 1860 are said to have been but \$120,000. Now, however, their estates are estimated at more than \$120,000,000.

Mr. Poor states that "the cost per mile of the roads making returns (1888) as measured by the amount of their stocks and indebtedness equalled nearly \$60,732 as against \$58,603 for 1887," being an increase of \$2,129 per mile, and at the price recently prevailing, it would require 135,000,000 bushels of the farmers' corn annually to pay 5 per cent. on the water absorbed by railway securities in one year, and by such waterings yearly it will take but fourteen years to absorb the entire corn crop to provide revenue on the added fluid. How long shall this process be permitted to continue?

Mr. Poor also states that, in the eleven central farming States, railway earnings have in eighteen years increased 175 per cent. and the bushels of wheat and corn grow 160 per cent.; yet he forgets to tell us that such has been the shrinkage in the prices of farm products that the value of the wheat and corn crops in these States increased but 57 per cent., showing conclusively that the railways are taking a constantly increasing proportion of the proceeds arising from the sale of the products of the farm.

This is still more clearly shown on the same page in the statement that in these States railway revenue in 1870 was \$12 for each unit of the population as against \$18 in 1888. Thus the *per capita* transportation tax is shown to have increased 50 per cent.

Mr. Poor says, "With these facts before us, it is difficult to understand the extraordinary antipathy to railroad corporations in the West."

If such antipathy exists, possibly Mr. Poor could understand it if he would but look at these facts, and others herein



stated, in all their nakedness, keeping in view their true bearing upon the greatest of the nation's industries.

That no such antipathy exists is shown by the fact that, while the railways of Illinois are capitalized for \$42,450 per mile, they are assessed for purposes of taxation at \$7,863 per mile, those of Iowa are capitalized at \$38,069, and assessed at \$5,189, those of Nebraska are capitalized at \$40,172, and assessed at \$5,829, and those of Kansas are capitalized at \$52,155, and assessed at \$6,595 per mile.

We have seen some of the processes by which the investor is shorn, and an enormous fictitious capitalization piled up to aid in taxing the farmer and others. Is it any wonder that when his wares are selling at starvation prices, the farmer becomes restive under the burdens thus imposed and seeks to replace present ownership by that of the nation?

According to Mr. Poor, there existed 156,082 miles of railway at the close of 1888, showing a capitalization—including floating debts—of \$9,369,398,954, to pay interest and dividends on which a toll is levied on all the industries of the country.

How much of this vast capitalization is real, and how much the fictitious outgrowth of the practices described?

Owing to the practices illustrated, it is impossible for railway companies to show the cost of their properties, and we are compelled to reach an approximation by estimating such cost, and thus determining the sum upon which revenue should accrue.

#### ESTIMATED COST PER MILE OF EXISTING RAILWAYS.

|   |          |
|---|----------|
| Grubbing and clearing . . . . .   | \$100    |
| Right of way and land damage . . . . .                                    | 2,500    |
| Earthwork and rock cuttings . . . . .                                     | 4,500    |
| Bridges, culverts and masonry . . . . .                                   | 3,000    |
| Ties — 3000 . . . . .   | 2,000    |
| Rails, splices, bolts and spikes . . . . .                                | 4,000    |
| Switches, side-tracks, cattle-guards, road croppings and fences . . . . . | 1,100    |
| Track laying, surfacing and ballasting . . . . .                          | 2,300    |
| Depots, water-tanks, stockyards, shops and terminals . . . . .            | 3,500    |
| Equipment . . . . .   | 4,500    |
| Engineering, rents, interest, taxes, and contingencies . . . . .          | 2,500    |
| Total cost per mile . . . . .   | \$30,000 |

\* That this estimate is more than ample is assured by the statement (in substance) of Mr. H. V. Poor that the capitalization of the roads built from 1880 to 1883 is double the actual investment and, could the fictitious capital be eliminated, railways, as investments, would have no parallel; and in the statement that within five years ending in 1883, "about 40,000 miles of line were constructed at a cash cost of at least \$1,100,000," being \$27,500 per mile; and that "in 1884 only about 4,000 miles of new line were constructed, the cost of which did not exceed \$20,000 per mile and perhaps not over \$15,000 per mile."

For each mile of railway costing more than \$30,000 per mile, ten can be found that have cost from \$8,000 to \$20,000. The eastern two hundred miles of the Kansas Division of the Union Pacific, built in the era of high prices, cost less than \$20,000, although now bearing a capitalization of \$105,000 per mile, but a well known manipulator — who made restitution of millions to the Erie — supervised its reorganization, which may account for the generous volume of water incorporated in the securities.

The Missouri Pacific line from Eldorado to McPherson, Kansas, a comparatively expensive prairie road, being located across the line of drainage, cost much less than \$10,000 per mile, as have thousands of miles of other prairie lines.

Possibly \$30,000 per mile is less than it would cost to duplicate the railways, east of Ohio, but the most of the mileage being west of that region where the cost, outside of a few mountain roads, is at a minimum, the estimate, if erroneous, certainly errs in placing the cost too high. Moreover, we have a factor of safety in the fact that the nation, to aid in building railways, has granted 197,000,000 acres of land, a large part of which has passed into the possession of the railway companies, and from which they have realized vast sums, probably more than \$300,000,000, to which should be added State and municipal aid and individual donations to the amount of \$150,000,000 to \$250,000,000.

Taking no account of the sums loaned the Pacific railways, the people have contributed at least \$2,000 per mile towards the cost of existing railways, hence we are warranted in as-

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\* See Poor's Manual for 1884 and 1885.

suming that \$30,000 per mile is the maximum sum on which the user should furnish revenue, less such revenue as the corporations derive from rents, interests, and dividends, from lands, buildings, railways, mines, stocks, or bonds bought or brought into existence by an expenditure of any part of such \$30,000 per mile or the earnings therefrom, such revenue, aside from traffic earnings, being now about \$90,000,000 per annum.

It is claimed that in determining the amount of capital on which the rates of toll shall be based, the people are entitled to no voice, but, as the compensation is to be reasonable and the measure of such compensation being the cost of maintaining and operating the railway plus a fair return for the capital actually employed, the people are unquestionably entitled to a voice in determining what such compensation shall be and how it shall be arrived at, and their representatives will find the railways have cost not to exceed an average of \$30,000 per mile, and could be duplicated for enough less to more than offset the enhancement in the value of right of way, depot grounds and terminals.

Railways well located and mortgaged for 80 per cent. or less of actual cost can dispose of three and one half to four and one half per cent. bonds at par, but badly located or poorly managed roads often failing to pay interest, we may call five per cent. a fair rate, and on this basis the annual net revenue of roads existing at the close of 1888, from traffic, rents, interest, dividends, and all other sources, should not exceed \$234,123,000, being \$67,408,000 less than the net traffic earnings reported by Poor, and taking the net earnings (\$405,220,000) as shown by the Inter-State Commission, the excess is \$171,097,000 wrongfully extorted from the agricultural and other industries in one year.

This difference in the amount of net earnings arises from the fact that, in Poor's Manual, only traffic earnings are tabulated,\* no account being taken of the immense sums railway companies derive from rents of lands, buildings, track, and terminals, as well as in the form of dividends on stocks and bonds owned, and the profits from the sale of such securities, all amounting to vast sums and yearly increasing as the railways become consolidated and absorb more and

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\* Page 4 of the Introduction of Manual of 1889.

more of existing property; hence Mr. Poor's figures are incomplete and misleading, inasmuch as they fail to convey a correct idea of the total of railway earnings or the amount annually extorted from the user.

Of the \$234,123,000 resulting from a five per cent. revenue on \$30,000 per mile, a very large part, as will hereafter be shown, belongs to the user rather than the investor, while many parallel roads, built for construction profits, are needless, and others so badly located that the traffic will be wholly insufficient to provide revenue, and the owners must, like the owners of badly located buildings, suffer the loss entailed by lack of business sagacity. Favorably located roads can collect more than five per cent.; should they be permitted to do so? Each railway company is a distinct organization, each road a separate instrument and specially conditioned, and it is questionable if the compensation for the capital employed should, in any case, be permitted to exceed the rates fixed upon, from time to time, as a just return. As interest rates fall, so should returns from railway investments.

Justice and reason appear to have little part in determining railway rates, the environment being all potent, as in the States where efficient granger laws \* have been reinforced by a strong and active commission, rates are much the lowest and highest where either the laws or the commission are inefficient; yet enough has been accomplished to show the beneficent possibilities of governmental control in suppressing some of the multifarious evil practices of railway companies, and while these practices continue they are much less common and not so flagrant as in the past, when the manager of an Inter-State railway, in order to destroy the value of the property of a coal company having no other outlet for its product, could, without a minute's notice, advance the rates on coal shipped by such company 133 per cent. above the rates charged another coal company in which such railway company and its officers were stockholders; nor with the Inter-State law in force are railway officials likely to repeat the indiscretion of such manager in writing the president of a coal company (of whose property he desired to force a sale) the subjoined letter.

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\* "Granger laws" are the laws enacted in the Agricultural States of the Mississippi Valley for the control of railway rates and methods.

ST. LOUIS & SAN FRANCISCO RAILWAY COMPANY, }  
OFFICE OF THE SECOND VICE-PRES'T AND GEN'L MANAGER, }  
St. Louis, Mo., February 9th, 1882.

*President Pittsburg Coal Company, Pittsburg, Kansas.*

*Dear Sir:*—I will pass through Pittsburg about 12 o'clock on Monday next, and would be glad to have you join me at Pittsburg, and go to Girard, and back to Pittsburg.

If we can buy your coal at a low price, I think we can possibly make a deal on that basis.

As long as you continue shipping coal, it has a demoralizing effect on the trade, and renders the coal business unprofitable, to a certain extent, to the "ROGERS COAL COMPANY."

Respectfully,  
C. W. ROGERS,  
*Second Vice-Pres't and Gen'l Manager.*

Discriminations and other fraudulent practices, whereby the few are enriched at the expense of the public, doubtless continue, and will until railway managers, thus betraying their trusts, are sent to keep company with the men who plundered the Ocean, Fidelity, and Sixth Avenue banks; but there is, as compared with the time preceding the enactment of Inter-State and State laws, but little of the work of discrimination in progress; and great as is this evil, it is trivial as compared with those growing out of a capitalization excessive by more than one half, and which is the warrant for annually levying an immense sum in unjust tolls, by which producer and consumer are alike despoiled of a large part of their earnings.

If the courts are right in holding that the carrier is entitled to but a reasonable compensation, and that the reasonableness of the charge rests upon the cost of maintenance, operation, and the amount actually invested in the plant, then the exaction of existing rates of toll is wholly indefensible. As a bar to the rendering of justice to the user, the plea is made that should rates be reduced to what would afford but a fair return for the actual cost of the plant, it would work great hardship to the present holders of railway securities, who are assumed to have bought them in good faith, and many of whom are widows, orphans, trustees, and institutions in which the poor have deposited their scanty savings. Has this plea against justice any basis except one of sentiment? If sentiment and a charitable regard for the poor and helpless shall govern, are there not twelve times as many widows, orphans, and poor among the 60,000,000 of railway users?

From the fact that there are 10,000 holders of New York

Central stock, Mr. Poor estimates that there are 1,000,000 investors in railway securities, who, with their dependents, constitute a body of 5,000,000, and it is proposed that rather than this one thirteenth shall surrender, once for all, so much of their power to tax others as is the direct product of fraud, that they shall continue such unjust taxation.

This is not simply a proposition that one thirteenth of the population shall unjustly tax all others this year, next year, or even the third or fourth year, but that such burden, yearly increasing by the addition of more water, shall be carried by the twelve thirteenths to their graves, that when death relieves them, their children and children's children, for countless generations, shall each in its turn take up the grievous burden and carry it until they also drop into the grave, and so long as these railways exist, this one thirteenth shall possess the power to thus levy an iniquitous impost upon the entire industry of the country. Could anything be more unjust?

Shall 60,000,000 people and their descendants suffer a great and growing wrong rather than that 5,000,000 shall surrender a power to which they have no right?

The railway is public rather than private property, and while the stockholder is entitled to the usufruct and its limited control, yet such control is a trust for a specific purpose, such purpose being the service of the public for which the compensation shall be just and reasonable, but the law never contemplated that one party in interest should alone be in possession of the knowledge necessary to a determination of the amount of capital employed, and the reasonableness of the charges made, and so long as such knowledge is withheld, shareholders must expect discontent on the part of the public, and efforts to secure such control as will ensure justice; and it is this discontent which has been one of the most potent factors in bringing into existence the "Farmers' Alliance" and kindred organizations, in which millions of farmers—for the first time in history—are united for a common object.

The endowment of the railway company with the exceptional power to enter upon and take private property, and the equally exceptional limitation of the stockholders' liability to the cost of the shares held, implies special duties and obligations to the public; and the people, whose lands have been taken, who furnish the traffic, and provide the revenue,



have a right to a voice in determining the justness of the rates charged.

Another plea is that the cost of transportation is less in the United States than elsewhere, hence there can be no cause of complaint. If rates are higher in Republican France or Imperial Germany, where railways exist, primarily, for military purposes, it is neither our duty to emulate them in such matters, nor to copy their costly modes of railway administration; yet we may well profit by their example in providing for stringent control of railways and the rates for carriage.

The farmer, understanding that rates are unjust by reason of an enormous fictitious capitalization, and that such rates reduce the value of his land and its products, appeals to legislation for relief, which States have sought to furnish by laws, regulating rates and methods of administration, which are denounced as acts of robbery by the men who have perpetrated the frauds of which such laws are the resultant.

The men loudest in denunciation of every attempt at control by law are those most active in the manufacture of securities, in operating the construction company, in paying unearned dividends, in selling or capitalizing cheap lines at many times their cost. These are the special champions of the widow, the orphan, and the savings bank, whom they have despoiled by the most unblushing frauds. These are the innocent, chivalrous men, high in the esteem of the street and the exchange, who wish the way left open for more nickelplating, more Wabashing, more Credit Mobiliers, and more stock and bond watering.

There is abundant evidence that where the laws have been such as to secure the greatest control,—Illinois and Iowa,—well located and judiciously managed railways are exceedingly prosperous. Many great lines derive the major part of their traffic from the granger States, yet the laws, which railway managers and investors denounce as acts of confiscation, have not prevented the payment of good dividends. Mr. Poor shows that, for twenty-five years the Chicago & Alton dividends have averaged 8.7 per cent., that the Chicago, Burlington & Quincy has paid regular cash dividends ranging from 8 to 10 per cent. per annum, and stock dividends aggregating \$6,701,990. The Chicago, Rock Island & Pacific has done about as well in the way of dividends, although its traffic has been so largely drawn from Illinois

and Iowa. Until certain bond and stock operations, the Chicago, Milwaukee & St. Paul paid 7 per cent. dividends, and the Chicago & Northwestern has swelled its capital account by the payment of stock dividends, while paying regular cash dividends of 6 to 8 per cent., and the Illinois Central has, for twenty-six years, paid dividends ranging from 4 to 10 per cent. per annum, and aggregating \$56,989,847.

Notwithstanding these laws and that nearly or quite all these roads carry an undue amount of water, that crops have failed, and panics have prostrated the industries of the country, they have prospered, new lines been added from the tolls collected on the old, the investor received ample returns, and some of the managers enabled, by some occult process, to amass enormous fortunes, all going to show that the granger laws have not been oppressive, and that when railways fail to make fair returns it is due to faulty location, unreasonable rate wars, speculative or incompetent management, or an extraordinary excess of water in capitalization.

Possibly a flood of light may be thrown on this subject by the experience of the writer when general freight and passenger agent of a new railway. Imbued with the idea that the prosperity of the road would be subserved by encouraging immigration and fostering business, the writer formulated tariffs calculated to further such ends. Imagine his astonishment when told by the general manager they would not answer, and to be informed that the road was not being built to make money out of its operation but out of its construction, and what was required of the traffic department was the greatest present revenue possible and to make the passenger rates just low enough to take the traffic from the stages and the freight rates no lower than necessary to drive the ox teams out of the freight business.

The policy then outlined was pursued until the railway passed through the reorganization thereby made inevitable, and this cheaply-built prairie line, with free right of way and land grant and subsidy equal to its entire cost, is now capitalized for \$105,000 per mile.

On most railways the basic principle underlying tariff and schedule is "All the traffic will bear," and it is to hold in check these "Chevaliers of the road" that granger laws are formulated.

It may be safely assumed that \$30,000 per mile is the out-

side cost of existing railways, and that the aggregate, at the close of 1888, on which tolls should be based, was \$4,682,246,000; but here the question arises: How much of this sum has the railway builder furnished, and what part has been extorted from the railway user in the form of excessive tolls?

Available data does not admit of going back of 1874 when 69,273 miles were in operation, the cost of which, at \$30,000 per mile, being credited to the builders; and adopting the net (traffic) earnings as shown by Poor we find that, in 1874, crediting each \$30,000 with its proportion of such earnings, *pro rata*,—and adopting the capitalists' theory that the water in the capital is entitled to the same revenue as the money part thereof—the earnings of the water in the capitalization of that year amounted to \$91,957,829, being equal to the cost of 3,065 miles of railway. Continuing such computations for fourteen years and crediting the railway users with the income of so much of the railway mileage as was, from year to year, built from the tolls collected on the capitalization in excess of \$30,000 per mile, it appears that the users have, within fifteen years, been mulcted, in the shape of tolls based wholly on water, in the sum of \*\$2,422,588,455, from which those in possession have constructed 80,752 miles of new railway, leaving but 2,901 miles, costing \$87,030,000, to have been built, in the same period, from funds supplied by those claiming to own all the railways. For details of these computations, see Table I.

Should it be claimed that instead of dividing the earnings *pro rata* between the real and fictitious capital, that the real is entitled to full compensation before anything is assigned to the fictitious, we will, without admitting that the preceding computations are not correctly based, proceed to first give compensation, at the rate of six per cent. per annum, for all the capital actually employed (except that furnished by the users in the form of tolls in excess of such six per cent.), and again assuming that the capital to build all the roads existing in 1874 had been furnished by the putative owners, and we find the results as set forth in Table II.

Table II. shows that from traffic earnings alone the holders of shares and bonds have received six per cent. per annum

\* This is from traffic earnings alone, to which should be added a vast sum from miscellaneous sources.

TABLE I.

| Year. | Miles of railway in operation. | Capitalization per mile. | Net traffic earnings, <i>Per Poor.</i> | Net traffic earnings per mile. | Mileage on which investors are entitled to revenue. | Proportion of earnings per mile on road built by investors at cost of \$30,000 per mile. | Proportion of earnings per mile on fictitious capital. | Earnings each year on fictitious capital. | Earnings of road built subsequent to 1874 from revenue on fictitious capital. | Total earnings from fictitious capital and from road built by railway users therefrom. | Miles of railway built in pre-emption years from tolls or fictitious capital and from tolls of excessive tolls. |
|-------|--------------------------------|--------------------------|--|--------------------------------|---|--|--|---|---|--|---|
| 1874  | 69,273                         | \$58,256                 | \$189,570,308                          | \$2,736.57                     | 69,273  | \$1,406.10   | \$1,327.47   | \$91,867,829                              | \$ 7,923,423  | \$91,867,829   | 3,065   |
| 1875  | 71,759                         | 61,652                   | 185,506,438                            | 2,585.13                       | 68,694  | 1,258.00   | 1,327.13   | 91,165,867                                | 16,152,432  | 99,080,260   | 3,593   |
| 1876  | 73,598                         | 58,562                   | 186,452,752                            | 2,536.50                       | 67,140  | 1,259.50   | 1,237.00   | 82,196,298                                | 22,508,680  | 98,348,730   | 3,548   |
| 1877  | 74,112                         | 60,678                   | 170,976,697                            | 2,307.00                       | 64,466  | 1,142.00   | 1,165.00   | 75,074,590                                | 25,388,680  | 100,034,260  | 3,601   |
| 1878  | 78,969                         | 59,163                   | 187,575,167                            | 2,375.57                       | 66,068  | 1,204.41   | 1,171.86   | 82,344,761                                | 45,277,355  | 127,622,116  | 4,251   |
| 1879  | 79,069                         | 57,739                   | 216,544,989                            | 2,740.76                       | 62,516  | 1,434.10   | 1,419.10   | 93,234,752                                | 64,677,581  | 157,852,333  | 5,262   |
| 1880  | 82,146                         | 58,024                   | 255,357,555                            | 3,111.01                       | 61,462  | 1,455.02   | 1,475.00   | 98,735,550                                | 76,277,210  | 175,010,760  | 5,834   |
| 1881  | 82,971                         | 60,445                   | 252,406,787                            | 3,050.62                       | 60,486  | 1,455.02   | 1,455.02   | 99,678,768                                | 85,098,274  | 184,777,040  | 6,159   |
| 1882  | 104,971                        | 61,363                   | 293,267,585                            | 2,756.47                       | 73,131  | 1,296.54   | 1,370.53   | 99,209,926                                | 100,999,717   | 200,209,643  | 6,674   |
| 1883  | 110,414                        | 62,793                   | 268,064,606                            | 2,418.32                       | 70,999  | 1,133.66   | 1,184.66   | 84,077,689                                | 103,628,904   | 187,706,593  | 6,257   |
| 1884  | 121,729                        | 61,298                   | 269,493,531                            | 2,185.32                       | 72,380  | 1,067.75   | 1,117.57   | 80,870,718                                | 111,357,351   | 192,228,069  | 6,408   |
| 1885  | 125,185                        | 61,668                   | 300,603,564                            | 2,401.27                       | 67,847  | 1,179.02   | 1,222.25   | 82,965,955                                | 137,748,854   | 220,652,849  | 7,355   |
| 1886  | 137,028                        | 58,603                   | 334,989,119                            | 2,444.67                       | 72,335  | 1,251.67   | 1,193.00   | 86,265,444                                | 158,219,042   | 244,482,486  | 8,149   |
| 1887  | 145,387                        | 60,731                   | 301,631,651                            | 2,074.61                       | 72,545  | 1,024.86   | 1,049.75   | 86,125,770                                | 151,174,766   | 237,300,536  | 7,910   |
| •     | •                              | •                        | •                                      | •                              | •   | •  | •  | \$1,311,114,877                           | \$1,111,473,578   | \$2,422,588,455  | 80,752  |

The above computations are based on a cost of \$30,000 per mile, and the unwarranted assumption that investors furnished the money to build all the roads existing in 1874.

TABLE II. Showing revenue of investors at six per cent. on cost of \$30,000 per mile and mileage built from earnings in excess of six per cent.

| Years. | Miles of Railway in operation. | Mileage on which investor's revenue is computed. | Capital furnished by investors on the basis of cost being \$30,000 per mile. | Revenue of investors on basis of six per cent. on cost of \$30,000 per mile. | Revenue of railways. <i>Per Foot.</i> | Earnings in excess of six per cent. on \$30,000 per mile, hence belonging to the railway user, but employed in building new roads. | Miles of railway built from tolls in excess of six per cent. on \$30,000 per mile, and to the investor has no right. |
|--------|--------------------------------|--|--|--|---------------------------------------|--|--|
| 1874   | 69,273                         | 69,273   | \$2,075,190,000  | \$124,901,400  | \$189,570,958                         | \$ 64,879,558  | 2,163  |
| 1875   | 71,759                         | 69,596   | 2,067,890,000  | 125,272,800  | 185,596,458                           | 60,253,638   | 2,008  |
| 1876   | 73,508                         | 69,337   | 2,080,110,000  | 124,806,600  | 186,492,752                           | 62,646,152   | 2,088  |
| 1877   | 74,112                         | 67,853   | 2,035,500,000  | 122,135,400  | 170,976,697                           | 48,841,297   | 1,628  |
| 1878   | 75,969                         | 71,073   | 2,132,190,000  | 127,931,400  | 187,575,167                           | 59,643,767   | 1,988  |
| 1879   | 79,009                         | 69,134   | 2,074,020,000  | 124,441,200  | 216,544,999                           | 92,103,779   | 3,070  |
| 1880   | 82,146                         | 69,291   | 2,076,030,000  | 124,561,800  | 255,557,555                           | 130,965,755  | 4,346  |
| 1881   | 92,971                         | 75,690   | 2,269,800,000  | 136,198,000  | 272,406,787                           | 136,218,787  | 4,357  |
| 1882   | 104,971                        | 83,119   | 2,493,570,000  | 149,614,200  | 286,416,696                           | 131,762,486  | 4,357  |
| 1883   | 110,414                        | 84,205   | 2,526,110,000  | 151,569,000  | 283,967,285                           | 115,537,895  | 4,729  |
| 1884   | 115,672                        | 84,737   | 2,542,110,000  | 152,626,000  | 298,044,468                           | 110,150,733  | 3,651  |
| 1885   | 123,320                        | 88,024   | 2,635,720,000  | 156,548,200  | 299,693,931                           | 144,494,860  | 3,672  |
| 1886   | 125,185                        | 88,024   | 2,601,810,000  | 156,548,200  | 300,693,564                           | 144,494,860  | 4,816  |
| 1887   | 127,028                        | 88,727   | 2,812,020,000  | 168,737,200  | 334,980,119                           | 166,231,919  | 5,542  |
| 1888   | 145,381                        | 96,572   | 2,807,160,000  | 173,829,600  | 301,631,031                           | 127,801,451  | 4,260  |
| —      | —                              | —  | —  | —  | —                                     | \$1,562,280,471  | 53,076   |

for every dollar invested and have, within fifteen years, been enabled, by the watery fiction, to extort from railway users the enormous sum of \$1,592,280,471 (to which should be added about half as much more from miscellaneous earnings), with which has been built 53,076 miles of railway, for the use of which it is proposed to forever tax those who have furnished all the money employed in its construction.

Is it possible that no remedy can be found for such evils? In the National Bank the law has created another form of public trust, but one whose relations to the people are infinitely less intimate and with the services of which the public could dispense without serious results.

The railway and the bank each perform functions that the State might; yet the bank alone is held to the most rigid discharge of its duties, a maximum fixed for its rates of toll, the amount it shall loan any one party, and the kind of security determined as well as the amount of its reserve fund, its books and assets at all times subject to inspection without notice, no share issued until paid for in full, the payment of unearned dividends made a penal offence, and breaches of trust punished in an exemplary manner.

Can there be any sufficient reason why the railway corporation, with infinitely greater power and privileges, performing functions a thousand times more important, and directly affecting a hundred persons for one affected by bank administration, should not be subjected to control quite as stringent and quite as far-reaching?

Shares and bonds being the basis of tolls, should a railway company be permitted to issue share or bond until its par value in actual money has been covered into the corporate treasury?

Should the basis of tolls be laid until it has been shown that a proposed line is necessary to public convenience and will make fair returns on its cost?

Should a railway company be permitted to collect tolls until it has shown the exact cost of the instrument of transportation?

Should it not be a penal offence for a railway official to pay an unearned dividend?

Should not railway accounts, stock and bond ledgers, and assets be subjected to like inspection as those of national banks?



Would not rate wars cease, were railways once having reduced rates, debarred from ever again advancing them without governmental permission?

Should not railway companies be taxed on their capitalization as shown in issues of bonds and shares?

Should not railways be appraised at present cash value, and earnings, from all sources, be limited to what would afford a given or maximum return on such appraisal?

Or should the nation assume the ownership and operate the railways through a non-partisan commission, as the Province of Victoria, Australia, has shown to be both practical and economical?

There is no longer any question as to the power of the nation to control these great arteries of trade, nor is there outside a limited circle, any question as to the necessity of such control, and it but remains for the lawgivers to formulate such statutes as will protect user and investor, both of whom are at the mercy of a small body of men who can and do make and mar the fortunes of individuals, cities, and States, without let or hindrance.

## CONSUMPTION CURES AND MICROBICIDES : DR. KOCH AND DR. STILLING.

BY PROF. JOS. RODES BUCHANAN, M. D.

THE universal interest in reference to a disease which is foremost in its mortality has attracted great attention to the claims of Dr. Koch, who occupies so eminent a position in professional and imperial favor that anything he may say is sure of world-wide attention, independent of the fact that he is a man of real ability and learning. But a sudden clamor in the ranks of the profession and the pages of medical journals is not very strong evidence of the value of any supposed discovery. Real discoveries in the humbler ranks of professional life have very hard work to win proper attention. The simple cure of scurvy had to wait one hundred and seventy years before it was officially adopted in the British Navy, although ships were often paralyzed by the condition of their scurvy-scourged crews. A Hartford dentist and a Georgia doctor had made known widely the power of anæsthesia, when it was scornfully denounced by a medical society at Philadelphia; but the ridiculous proposition to cure consumption by injecting sulphuretted hydrogen into the bowels, found immediate favor and rapid distribution of the apparatus. Nothing has been brought out in the professional battle with consumption with anything like half the *éclat* that belongs to Dr. Koch's germicidal method which, to a master of the subject, offers no promise to justify its intemperate laudation, which raises hopes that are sure to be disappointed.

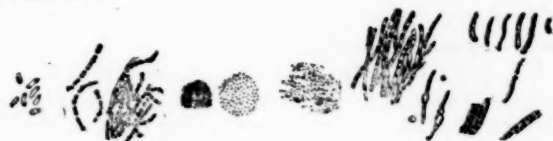
The supposed discovery that consumption is a disease due entirely to a bacillus, would attract less attention but for the superficial mode of thought which, in its eagerness to find an embodied material cause, ignores the etiology of the disease and the history of its therapeutics. To faithful students and successful practitioners, the causes of consumption have long been well known — its preventives have been well understood, and its most efficient curatives have been

extensively studied and used in practice. But it is a cheap and easy thing to those who know no better, to ignore all this and reduce all etiological and therapeutic research to the simple process of guarding against microbes and trying to kill them.

Are not microbes the causes of all diseases, and has not one doctor found the microbe of old age? And have not several found the microbe for pneumonia, and are we not on the road to finding the microbes of insanity, theft, and murder? Does not the courageous Texas gardener propose to abolish all diseases by killing all the microbes with a fluid, which a chemist pronounces to be sulphuric and muriatic acids, which really have some anti-microbean power? And is not Radam following illustrious professional examples?

Seriously, we might as well seek for the microbe of concussion of the brain, as hunt for a microbe of pneumonia in the sense of causation. Microbes are continually generated in the destruction of tissues, and no doubt are noxious like other pathological products, which are effects of disease. Concussion of the brain is not more certainly the effect of mechanical violence than pneumonia is an effect of cold, which we can produce with mathematical certainty.

But the microbe theory is the rage just now, and an animalcule cause must be found for everything. Heat and cold, bad food, malaria, and mental prostration need not be considered, for the microbe is as omnipotent in pathology as "mortal mind" in Mrs. Eddy's theories. The appearance of these microscopic animalculæ as revealed by the microscope is shown in the annexed engraving with some diseases in which they are found.



TYPHOID  
FEVER

YELLOW FEVER

DIPHTHERIA

TUBERCULOSIS

Something of this sort has always been fashionable in medicine. The multitude rush in pursuit of the last bubble. Humoralism, solidism, Brunonianism, Broussaisism, Listerism, Microbism, are specimens of the fads that have flourished,

each containing truth enough for shallow thinkers, but not enough for those well grounded in medical philosophy.

It is half a century since those able investigators, Andral and Majendie, laid a foundation for the Institutes of Medicine by their investigation of the blood, showing that consumption was a disease incompatible with normally developed blood. But there was too much of the solid methods of unquestionable science in their labors to stimulate the fancy — too much of substantial progress to enlist the sympathy of the impulsive class who overlook the elaborate investigations upon which medical philosophy is based, and seldom look into the "*Clinique Medicale*" of Andral, or the physiological lectures of Majendie, which are by no means superseded by the more recent labors of Claude Bernard. These two authors (especially Andral, the most philosophic of French physicians) established that when digestion and respiration under proper nervous or vital influences had developed the blood to its normal condition, with its red globulous elements, amounting to 12 1-2 per cent. neither consumption or any other disease of debility could arise, but when the red element had diminished twenty, thirty, or forty per cent., a state of declining vitality existed, in which diseases of debility necessarily arose, and under the proper circumstances tuberculous consumption was inevitable. In the experiments on rabbits, consumption was regularly produced by situations in which they were placed, depressing to vitality, and as regularly prevented by using the proper medicine under the same depressing circumstances, but medicine which had no germicidal character.

Whether in such experiments the tuberculized structures generated bacilli or not was merely a question of microscopical anatomy of no practical importance. The consumption was produced by the exposure, as evidently as rheumatism might be produced, and there was nothing in the exposure suggestive of bacilli in one case more than in the other.

Myriads of animalcular life surround us at all times in the atmosphere, and penetrate the human body, which is never free from millions of such tenants, which prove to be as harmless in the normal body, as the water, or air. A famous English surgeon, Tait, expressed his contempt for the bacterial theories by saying that he used, in his surgical operations, the water in common use, although it was sup-

posed to contain twenty or thirty different species of little beasts. The existence of minute, independent, living, moving bodies in the human constitution is not morbid, but natural, proper, and healthy. We drink them in daily by millions, draw them in with every breath, and some of them are an integral part of the blood. The white globules of the blood correspond to the amœbæ, and move about with their own independent volition. Animalculæ are ineradicable, but those which are generated in morbid conditions, are like other products of disease, calculated to diffuse the morbid condition, and their removal is useful, like other acts of purification and excretion; but the efficient mode of removal is the removal of the disease which is the cause or the liability, and avoidance of external impurities.

Notwithstanding the wild extravagance of theorists, bacteriological researches and fluid injections are commendable researches of great promise, when rationally conducted; and while Professor Koch has been raising false hopes, Drs. Behring, of Berlin, and Katosata, of Tokio, have quietly performed far better work, by careful experiments, in showing that the blood of animals can be so changed, by the injection of prepared serum (no bacteria), as to resist the poison of both *tetanus* and *diphtheria*, even when the poison is injected. This is true science, not sensationalism. We may yet and probably will discover antidotes against all poisons and contagions by hypodermic injection. Dr. Mueller, of Australia, has found strychnine the true antidote for snakebites of the most venomous character, and Professor Polli, of Italy, demonstrated, long ago, that bisulphites of soda and of lime were perfect antidotes to pyæmia, but President Garfield was not allowed the benefit of this discovery.

Hypodermic injections will play an important part in future medical experiments. I think it highly probable that an injection of cimicifuga will prove a more efficient antidote to small-pox than the much debated lymph now used for vaccination, and if Dr. Brown-Séquard's famous stimulating injection were placed on trial in comparison with Koch's feverish lymph in the same class of cases, I should have more faith in the success of the Frenchman than the German. An old and powerful remedy, GOLD, which is as potent in therapeutics as in finance, has been successfully used in New York in hypodermic injections of its salts in cases of con-

sumption. It is one of the most perfect tonics that we have, in the veins as well as in the pocket.

The contagious nature of consumption and philosophy of its treatment being well established, it was not very important to learn whether the expectorated substances accessory to contagion contained the bacillus or not, for all pathological exudations and excreta convey contagion, although medical scepticism has not yet ceased to deny it, and a brave French physician lost his life in trying to prove that yellow fever was not contagious. But there is a great medical truth of more practical importance than bacterial doctrines,—the truth that *contagion does not depend on absorption*,—which I have been demonstrating to my pupils more than forty years by experiments on themselves,—that absorption is unnecessary, and that contact alone is entirely sufficient for the transmission of any disease, and I am ready to repeat the practical demonstration whenever it is desired. This abolishes the mechanical theory that a microscopic bacillus must *necessarily* be absorbed in contagion, or in the original production of the disease, which can be produced by proper exposure and diet, irrespective of bacterial theories.

In the fashionable bacterial craze it is most illogically *assumed* that because a certain bacterial substance generated in disease, will reproduce that disease like other morbid products, *therefore* it must have been the original cause of the disease. The same reasoning might be applied to any other morbid product. It seems to be forgotten that causes and effects are very different things. If summer always brings swallows, it does not follow that swallows are needed to bring summer—it has other causes. The morbid products of a disease may reproduce it, but diseases are not *the effects* of the substances they develop, and Providence has not filled the world with malignant bacilli to produce consumption. Such a malignant Providence would be more offensive to the moral sense than Calvin's gloomiest ideas.

When Professor Koch shall find his microbes of consumption floating by millions in the atmosphere *where consumption has not produced them*, ready to attack the feeble, and show that they do this, the bacilli theory of its origin will have a sound basis, but at present it seems to have none. According to this wild theory, whenever the medical Don Quixote has killed all the *bacilli tuberculosis* consumption will be anni-



hilated forever; but the mass of the medical profession are not sufficiently credulous for that.

The microbe theory has but little to do with preventive measures and the curative measures now in use, and suggests no other precautions than what we should use if no such theory were in existence. Nor does it diminish the absolute necessity of each of the preventive and curative measures which have been successfully used, under which consumption has sometimes been cured, after ulceration has left cavities in the lungs, of which Andral gave examples long before our best measures had been discovered.

Even when the destruction of microbes hinders the progress of the disease, it cannot amount to a restoration of health, for that depends upon the restoration of the blood to its normal condition by nourishment, exercise, and respiration, with which the microbe-killing business is not connected. Physiology and pathology therefore affirm that the microbic treatment can play but a small part in the treatment of the disease, however successful the germicides may be, and the wild enthusiasm about the discovery of Doctor Koch simply demonstrates the large amount of ignorance or indifference as to medical philosophy, prevalent in the profession, and the low condition of certain fashionable therapeutics grasping at straws because it has so little confidence in its own resources. The mass of practical men, however, will not be caught in this momentary impulse. They know that it is not the first crop of tubercles that kills, but their continual production as long as the tuberculous diathesis exists — the change of which is indispensable to a real cure.

Those who are so carried away by the microbe theory as to ignore the well-known etiology of diseases must have forgotten, if they ever knew, the researches of Andral and the prominent fact in etiology that consumption depends largely or mainly upon altitude for its presence or absence.

The healthy development of the lungs and nervous system depends on the conditions that obtain in high altitudes — in other words, upon the moderation of the atmospheric pressure. "Consumption (says Prof. F. Donaldson) is most prevalent at the level of the sea, and seems to decrease with increase of elevation, according to Fuch, Von Tschudi, and Mackey. At Marseilles on the seaboard, the mortality from that cause was twenty-five per cent.; at Hamburg, forty-eight

feet above the sea, it is twenty-three per cent.; while at Eschwege, 496 feet above the sea, it is only twelve per cent.; at Brotterdale, 1,800 feet above the sea, the mortality is reduced to nine tenths per cent. Doctor Glutsman has published a number of interesting facts in regard to the immunity from consumption in very high localities, such as in the Andes of Peru, tablelands of the Rocky Mountains, in the towns of Santa Fé de Bogota, at an elevation of 8,100 feet. Potosi about 12,000, and the Puna region of the Andes, at 11,000, in Europe, many places on the Alps, as in Styria, Carniola, and the western section of the Pyrenees. In Africa, immunity is said to exist on the plateaus of Abyssinia. In Mexico, at 8,000 feet above the sea it is but rarely met with, and in Asia, on the high plateaus of Armenia and Persia." Colorado is a famous resort for consumptives, and Davos in the Swiss Alps, a mile above the ocean level, has been their refuge for twenty years.

The atmospheric pressure at the sea level is more favorable to the lower elements of animal life—to digestion and muscularity than to the lungs and brain, and when this pressure is doubled, as in a diving bell, it becomes dangerous. The caissons used for work under the water in bridge building are frequently a cause of paralysis in the workmen.

No possible amount of bacilli in the atmosphere can make consumption prevail in elevated localities, and no possible purification of the atmosphere can prevent consumption from prevailing near the ocean level.

When the causes of consumption are thus well known, and the preventive and curative measures well understood, there is very little room left for germicidal theorists, even if they could establish the necessary and invariable presence of the bacillus in the consumptive, which is but a result of the disease, like the expectorated pus. Nor would the establishment of its existence be a fact of the highest importance in its results. The discovery of a cholera bacillus has had no effect upon the cure of the disease, and the bacillus tuberculosis is evidently of no greater practical importance. Health and disease depend upon obedience or disobedience to hygienic laws, not upon a mysterious Providence or wicked little devils as microbes.

We know many curative measures which are not germicidal. Nearly all that is done at present by successful

practitioners has no bearing whatever upon the invisible bacilli. If their destruction can add anything material to our success, or give the patients any additional relief, it must, from the nature of the case, be but a limited matter, hardly comparable in value to any one of the twenty or more measures upon which we rely at present. It cannot, for practical value, be placed in comparison with Churchill's phosphates, or animal food as used by Salisbury, cod liver oil, hydroleine, milk punch, the preparations of Fellows and McArthur, a variety of inhalations, oxygenated, hot, and medicated, a number of ingeniously compounded syrups, electricity, animal magnetism, and the copious resources of homœopathy, etc.

A great variety of inhalations of unquestionable value are within our reach, and a Detroit physician is already gaining success in that way, the value of which was shown by Sir Chas. Scudamore half a century ago, in inhalations of iodine and conium.

We thus perceive the comparatively limited *role* of Koch's supposed remedy, and the almost incredible report by telegraph that two thousand foreign doctors had arrived at Berlin to become acquainted with Dr. Koch's treatment, seems like a satire upon the present condition of the profession, but somewhat mitigated in the same telegram by the statement of the philosophical objections of Dr. Damius, who insists upon the supremacy of the nervous system and vital conditions over local derangements—a doctrine which the writer has been endeavoring to enforce for half a century.

After reducing microbicide treatment to its proper subordinate and limited position in the treatment of this disease, we come to the practical question, has Dr. Koch invented or discovered anything that will even prove satisfactory as a microbicide? to which I would answer emphatically, No. His process is not hygienic, it does not fulfil the purposes of a rational treatment, but claimed a microbicidal action, and how much this action will assist in conquering the disease, remains to be proved.

The first requisite of a microbicide, of course, must be that it is not injurious to the patient—does not produce as much disease as it relieves. Dr. Koch's method does not stand this test. It follows the old and vicious heroic method and disturbs the patient, intensifies disease, producing effects

that in a delicate case might be fatal. If such a remedy is to be used, it is evident that Dr. Koch's will not be the favorite, because it is dangerous and thus far it has been carefully concealed, because as the telegraph informs us "Professor Koch says if it were placed without reserve in the hands of all practitioners *more deaths would result from its use than ever were caused by consumption.*" The despatches of the same date mentioned five deaths of patients under the Koch treatment, and dispatches of Dec. 17 say that Professor Koch is weary and nervous, and "acknowledges it is a fact that the young man Simos, of Elberfeld, died through the effects of the inoculation to which he was subjected by Professor Libberitz and himself. Another friend of Professor Koch, Herr Winter, the head Burgomaster of Danzig, has received ten injections without experiencing any signs of improvement, and beside this, the fever which follows the inoculation has affected his eyes to such an extent, that it is feared he will lose his sight. It is also stated on the best authority that Professor Koch is very greatly agitated because the wholesale manufacture of the lymph has proved a failure."

The report of Dec. 18 from Berlin says:—

"The reaction against the Koch treatment has increased in violence. Eight patients have died soon after the injection of the lymph, and this, combined with the fact that there has been no verified cure, has intensified the public feeling against the experiments.

A number of hospital patients here and in Lyons, who have been undergoing the Koch treatment, have refused to submit to further trials.

Owing to the public furor, the Commission headed by Professor Hallopeau, which is testing the remedy, has decided to maintain absolute silence as to the results until the tests have been completed."

Very prudent, indeed, when twelve deaths had been reported.

Dr. S. G. Dickson, who went to Berlin as the representative of the Jefferson Medical College, is said to have stated on his return, that the lymph of Dr. Koch "was one of the most powerful poisons known, and its effect on many people would be fatal, owing to the violent reaction it sets up, which is illustrated by the death of two patients in a St. Petersburg hospital with "intense suffering" from three

injections amounting to five milligrams, or less than the thirteenth of a grain.

Surely such facts are enough to condemn these pathogenic injections of poison, for we need no microbicides more dangerous than those we already possess. Dr. Damius says (Nov. 25) that Professor Koch has as yet attained no real results, but he promises to do so in the future, and in this he deceives himself, neglecting, as he does, the real root and emanations of the source of sickness. He forgets the nervous system

We have at present many microbicides that are powerful—phenols, chlorides, iodides, mercurial compounds, thymol, carbolic acid, creosote, and peroxide hydrogen,—all of which, except the last, have objectionable properties, but none of which have the dangerous septic tendencies of Dr. Koch's preparation of an animal poison which speedily develops a feverish condition in the subject, reaching the alarming temperature of from 103 to 106, and the dispatches say (November 13) that "Dr. Koch yesterday inoculated himself with some lymph, and afterward took a bath. While out he was seized with vomitings, accompanied by fever, which are the symptoms that always follow the inoculation of consumptive patients, and he had to return home in a cab." In all cases the seat of the disease is irritated, and the cough developed or increased.

But the furor goes on without a single cure to justify it, and dangerous experiments cause more enthusiasm than would a thousand speedy cures by other means apart from the prevalent medical mania. Money is pouring in, doctors are flocking, an American newspaper speaks of it as a discovery ranking higher than any ever made in medicine, patients are wild with hope, and old professors lose their heads. Professor Nothnagel, of Vienna, says: "Professor Koch has brought us face to face with one of the greatest intellectual achievements in the province of medicine for centuries past," before he has made a single cure, and the famous Billroth says, "an immense perspective opens out before our eyes," but the next news was that (Dec. 10) "Professor Billroth has stopped using Koch's lymph, one of his patients suffering from lupus and two from tuberculosis having become fearful for their lives on account of the recent deaths after inoculation," which by the way were not reported

by our papers. But the craze goes on like the famous tulip mania in Holland. Dec. 18, the despatches say:—

“Berlin has gone wild over Dr. Koch, and Dr. Libbertz, who superintends the distribution of the lymph, has 6,000 applications on hand from hospitals. English physicians are begging for the privilege of purchasing a drop of the lymph for \$100 for private experiments, and they do not often get it, although to those on the inside the price of a vial of lymph is \$6. . . . One man in Berlin offered in vain \$5,000 for a small quantity.”

This is far from telling the whole story of the European craze, the echo of which in America produced in a leading daily the rhetorical expression, “the announcement of his cure for consumption, the king of terrors, against whose onslaught *medical men have ever been powerless*, at once centred upon this German professor the eyes of millions.” “Could it be possible? Was there to be an end to the dread power of consumption?” yet medical men are not powerless, and the cure has not been discovered.

All this in spite of the cold water thrown on the blaze by many discreet physicians. Professor Semmola, of Naples, expresses the belief that Koch himself does not believe in the absolute efficacy of the lymph and that he ought to have “prevented thousands of phthisical patients from going to Berlin and making all sorts of sacrifices in order to meet with only complete disenchantment.” Bearing in mind that the Koch method as first proposed was simply a dangerous pathological injection, why does it create this furor, when better bactericides are familiar. Simply because of the bacteriological zeal of the profession, the audacity of the inventor, and his professional and imperial patronage. As a germicide and therapeutic agent it is far inferior to the peroxide of hydrogen, which has never received professional justice, because it has not had the Barnumizing of Koch’s lymph.

But after all it seems there is no germicidal action. We were first led to suppose that Dr. Koch had found the fatal bacillus and was going to exterminate it, as the only possible way of conquering consumption; but later news informs us that Koch was mistaken and the bacilli are not disturbed, but left to carry on their business of killing the patient if the bacterial theory is true, and that no impression is made on the tubercles, the essential feature of the disease, but some kind



of deadening "necrotic" action is produced on the morbid tissues around the tubercle, which sets the patient to coughing—this is the *theory*—but what a lame and impotent conclusion. Consumption is not due to bacillus tuberculosis and Dr. Koch cannot destroy the bacillus! and does not attack the tubercles. But we know that consumption is due to the tubercle and tubercles have often been absorbed and removed by alkalies and iodine.

Perhaps this necrotic action, which is all that is now claimed, may be very serviceable in lupus, a disease of a rather cancerous nature, in which success is claimed, but I think no pathologist would seriously affirm that this deadening the tissue, which simply adds a little more dead matter to the dead tubercle, would make a cure of consumption. But as Dr. Koch is a man of ability, he may keep on until he finds something really valuable.

It is not yet apparent that he has found anything as good or as safe as carbolic acid, which has been used successfully by injection in lupus and epithelioma, and in the early stages of consumption, and as his lymph is mixed with a half per cent. solution of carbolic acid which is known to produce such results as he claims, we can credit the lymph only with the dangerous toxic properties and the half comatose condition following the injections, the best effects of which are just such as carbolic acid has produced.

This is a thoroughly safe remedy in the hands of a physician, and we are profoundly indebted to Dr. Déclat of Paris for its introduction in the best form, to which he has given his attention for twenty-two years. His "syrup of phenic acid" (or carbolic) which, I am sure, is fully equal to quinine and free from its objectionable qualities, and is of great value in pulmonary affections, has not been adequately recognized in America. Though I am not writing for a medical journal, I must refer to the meritorious things which are obscured by a temporary craze.

In refreshing contrast to this Koch mania, sustained by imperial patronage, let us refer to something altogether different and altogether better—a true and tested discovery, brought out by a German physician after testing it well, in an honorable, quiet, and modest manner, without the blare of trumpets over dangerous experiments and unproven pretensions,—not claiming that bacteria are the sole

sources of disease, but showing that it is *easy to destroy them*.

I refer to Dr. STILLING's discovery of PYOKTANIN, the most perfect and harmless germicide ever revealed. If the destruction of bacteria is of such immense importance in consumption as newspaper scribblers would have us believe, Stilling's discovery is beyond all comparison with Koch's, as he has revealed an absolute germicide, a beautiful purple liquid or powder, which is also a perfect antiseptic, and therefore an antagonist of disease in general (for life is antiseptic, and disease is septic), instead of being a poison generating fever immediately as fevers are generated by the injection of putrescent fluids.

Stilling's PYOKTANIN is singularly harmless and wholesome, having been used upon rabbits until their interior tissues were pervaded with its blue color without any injurious results.

The experiments reported show that a solution of one part to two thousand prevented the putrefaction of meat,—even one thirty-thousandth resisted the development of putrefactive bacteria, and a sixty-four thousandth destroyed pathogenic bacteria, and varieties of pyococci. There is no other germicide possessing such therapeutic antiseptic power, combined with such wholesome innocence, and I may add such efficiency in disease, *controlling the severest inflammation*,—of which an example was given in a patient, in whom one eye was extirpated for disease, and the other hopelessly blind. The blind eye was relieved from all inflammation, and vision restored by pyoktanin. But this was not a dangerous sensational experiment; it was simply an honest and speedy cure, and somehow *cures do not excite the same enthusiasm* as dangerous experiments, which produce a baseball and horse-race excitement in the spectators. From my own investigation of pyoktanin, I believe it has a very wide range of value, and may rank as the great germicidal antidote of the future, for many morbid conditions of fever and inflammation, in which it has not yet been tested, and for which the inventor makes no claims. He does not claim its full merit, for I believe it will come nearer to the impossible panacea, than any recent addition to the *materia medica*. The rapidity with which, a few days ago, in the hands of one of my late pupils, it relieved, in a few hours, a troublesome case of tonsilitis, sur-

passed anything I have known. In myself, it promptly arrested a commencing influenza, with sneezing, running nose and eyes. In the hands of Dr. Stilling, an able ophthalmologist, it produced better and speedier results in all diseases of the eyes, than anything yet known. Other eminent physicians report great success in cases of crushed or bruised limbs, fresh cuts and contusions, old wounds, severe ulcerations (even syphilitic), and dangerous dermatitis. In all cases of suppuration, it controls and changes the condition. I take pleasure in urging its claims, as they have been so modestly presented by the inventor. I believe that its spray would be of extraordinary value in pneumonia and other inflammatory conditions of the lungs, in diphtheria and other affections of the throat. One of my medical pupils had a commencing cold and cough for which I recommended the inhalation of Pyoktanin spray, and in ten minutes he reported relief; another with cold and catarrh beginning used it with glycerine in the nostrils, and was surprised at his speedy cure.

Professor Koch may maintain his rank as an eminent scientist, with the discredit, however, of having been misled by bacterial enthusiasm into the expectation of curing a fully developed disease by a pathogenic injection. Pasteur would not pretend to cure fully developed hydrophobia, nor would any one pretend to cure smallpox by vaccination. Active poisons may be counteracted when first received, but fully developed constitutional conditions, matured through months or years, cannot be changed to health by any such sudden measures. Hence the Koch mania cannot last very long. It reminds us of the still more bacterial theory of Professor Cantani, who, on the principle of setting a thief to catch a thief, attacked the bacillus tuberculosis with the bacteria of putrefaction—the *bacterium termo*. The bacillus tuberculosis, being of a more refined nature, soon disappeared when the vulgar *bacterium termo* was thrust into his company, and, if we can trust the *Centralblatt per die Medicinischen Wissenschaften*, of July 18, 1885, the effects upon the consumptive patients were better than anything yet reported from Koch. But Cantani is already forgotten, and the Koch cure for consumption, as first presented, must meet its fate also. *Sic transit gloria mundi*.

And *mirabile dictu!* there is even a more amusing aspect

of this matter. Can there be any occult relation between Professor Koch, the adored hero of the hour, and Hahnemann, the founder of Homœopathy, the abhorred of the Universities? Can it be that, in accepting Koch and Pasteur, the faculty are swallowing the tail of the homœopathic serpent with a possibility of ultimately swallowing the whole?

The grand climax of homœopathy was quite beyond Hahnemann and his friends—though he was its efficient cause—it was ISOPATHY—trituated smallpox matter to cure smallpox—trituated matter from every disease to cure that disease. These triturations are still prepared and sold under scientific names in America and Europe. In using matter from rabies for hydrophobia, and matter from consumption (as supposed) to treat consumption, these famous gentlemen are walking in the penumbra of homœopathy. But to use a hunter's gun you must handle it like a hunter—and to practice Isopathically you should follow the Isopaths, who invariably *attenuate*, and do not, like Koch and Pasteur, use aggravating and dangerous doses. But to be brief, these learned gentlemen are experimental philosophers, and they will help the world onward toward that medical millennium in which all knowledge will be welcomed by all men, and truths stubbornly neglected to-day will have their honored place, while the delusions will be kindly forgotten, for lo! their number is illimitable. But it would require a powerful telescope to see the time when theologians and doctors shall all cease to be *sectarians*, and become amiable, harmonious, well-bred gentlemen.

## THE FALL OF ADAM.

BY HON. JOHN WELCH, LL.D., LATE CHIEF JUSTICE OF THE  
SUPREME COURT OF OHIO.

REV. MINOT J. SAVAGE contends, and I think successfully, that orthodox theology and ecclesiasticism rest entirely and exclusively upon a belief in the Bible account of the *creation and fall of Adam*. He also claims that no well informed and free minded person now believes the story. The latter claim, I think, is too broad. There are thousands of such persons who still believe it. They believe it, not from its intrinsic evidences of verity, so much as from the fact that it has been believed so long, and by so many wise and good people, and that it is claimed to have done so much good. What I propose to show is that no one *ought* to believe it; that on its face it is absurd, contradictory, and impossible. The Jews did not believe it, and had no such theory of man's fall and redemption, or of rewards and punishments after death. They were not orthodox Calvinists by any means. It is quite evident to me that the story is of Babylonian origin; that it was first learned by the Jewish captives during their captivity, and was then, or afterwards, added to the Bible history of the Jews, in order to piece it out and connect it with creation. The evidence of this supposition is unanswerable. The story of the creation and of Adam's fall—and, indeed, the whole antediluvian story, and of the tower of Babel—is found only in the first eleven chapters of Genesis. No mention or hint of any such thing is to be found in any subsequent parts of the Bible, at least down to the date of the last captivity. Other *miracles and marvels* of much less note are referred to again and again in almost every book of the Bible. The creation of the universe and of man, the deluge, and God's defeat of an attempt to scale heaven by a tower are of much more wonderful significance than the promise made to Abraham, the plagues of Egypt, the crossing of the Red Sea, the wonders of Mount Sinai, or the wars with heathen nations. Yet, while these inferior events are referred to again and

again, and even have festivals and set observances in commemoration and remembrance of them, not a syllable, not a hint, is to be found of those primeval and greater wonders which preceded them. Not a word is to be found of Adam's creation, of his transgression, or of its effects upon his posterity. No mention is made of the Garden of Eden, of Adam or Eve, of the serpent, or of the forbidden fruit. If the Jewish people, from the time of Abraham to the second Babylonian captivity believed, or had ever heard of, such a story, the fact that it, or some parts of it, do not appear in the subsequent parts of the Bible is a *miracle* equal to any of those recorded in that book. How could the author, or authors, of one hundred and fifty psalms, how could the prophets fail to draw upon or allude to this wonderful and fruitful subject? How could the priests, how could Moses, Aaron, Samuel, David, and Solomon fail to allude to it, or some part of it? The answer is, that it was unknown and unheard of by the whole Jewish nation. If Moses had such a revelation, how could he fail to allude to it in other parts of the Pentateuch, and particularly in *Deuteronomy*, where he rehearses almost everything else?

It is proved by discovery of uniform inscriptions that the Babylonians had a somewhat similar myth of these alleged primeval wonders. The Jewish Bible proper begins with the call of Abraham, and ends with the return of Jews from Babylon. How easy for Ezra, or some other scribe, to attach this eastern myth, perhaps in an enlarged and modified form, to the Jewish Bible. In order to make it appear authentic the author should have interspersed the subsequent parts of the Bible with a thousand references to the story. The Bible myth need not necessarily exactly tally with the Babylonian. It may have been held and told in different forms by the Babylonians, or imperfectly understood by the Jewish captives. Their languages were different, but enough was undoubtedly learned to make it the foundation of the Bible story. The object was to make the book more interesting and acceptable, by showing the wisdom and power of the God of the Jews, and that He was not only the God of Abraham, Isaac, and Jacob, but also the God of Adam and Eve. This view, of itself, ought to be held conclusive of the fact that the story is a myth. But it is by no means the only evidence. On its *face* the story is utterly incredible. What is the story?



There are evidently parts of *two stories*, blended as one. They differ but slightly—the one making the creation of the beasts *before* that of Adam, and the other placing their creation *after* Adam was put in the garden, and differing as to the *time* and *manner* of Eve's creation. But let us read the tale as a single account of the transaction. In plain and literal language the story is the following:—

About six thousand years ago, God, having finished the other works of creation, “created,” or *made* Adam out of “dust,” or *clay*. He was made in the “image” and “likeness” of God. God planted a garden, and put Adam into it, to *dress* it and to *keep* it. In the Garden were many trees, and among them the tree of *life* and the tree of the *knowledge of good and evil*. Adam was forbidden to eat of the latter named tree, under pain of immediate death, but was allowed to eat of *every other tree*, including the *tree of life*. And God said it was not good for Adam to be alone, and that He would make a helpmate. So God caused all the beasts which He had made, or, rather, which He then made, to be brought before Adam, but could find no suitable “helpmeet” for him among them. God then *made* a helpmeet for Adam out of one of his ribs, while he was asleep. But no commands were given to the helpmeet, Eve, and she was not forbidden to eat of any tree in the Garden. Among other beasts God made a *snake*, endowed it with extra *cunning*, and sent it, or allowed it to go, into the Garden, to deceive the poor ignorant woman, who, like the brutes, did not know good from evil, and who had received no commands from God. The snake went in, and told Eve, what! He told her the truth, namely, that if they eat of the forbidden fruit they should not immediately die, but should acquire a *moral* nature, knowing good from evil. They eat of the fruit; and instead of being immediately put to death, as had been promised, they were banished from the Garden, not for their disobedience, but for fear they would eat of a *non-forbidden* tree, the tree of life, and become gods, and live forever. Penalties were inflicted on the three offenders. The snake was condemned to *crawl* on his belly, which he could not be a snake without doing, and to have his head crushed by Adam's heel; Mother Eve was to have the pain of child-bearing, without which she could not be *mother* Eve; and Adam was to *labor* for his living (which he had already

been doing in the Garden), and to be bitten on the heel by snakes.

This plain and literal rendition of the text is not given as a caricature upon the story, but as the meaning it must have conveyed to the minds of primitive and ignorant people. If it had a secondary, hidden or mystical meaning, then it was not a *revelation*, but a *riddle*, and a deception.

Science and history long ago compelled orthodoxy to abandon the plain and literal reading of the story of the Garden of Eden, and to substitute in its place *secondary* and *imaginary* meanings to almost every word of the text. The alternative was, either to do so or to condemn the passage as a childish fable.

Take, for example, the statement that Adam was made in the "image" of God. To avoid the primitive belief that God had a man-like physical form, orthodoxy holds that the imagery was not *personal*, but *moral and spiritual*. Now the word "image" never had, and never can have any such meaning. It necessarily relates to something physical, visible, and tangible. Besides, to give the word the substituted meaning is to assign to the Almighty a very low place. If Adam was in God's *moral* and *spiritual* image, then God did not "know good from evil," and was liable to be deceived by Satan. To hold that a man who is almost fitted to be a companion for a female beast is in the moral, intellectual, or spiritual image of God, is little short of blasphemy. Either God was in the personal form of a man, or else He did not know good from evil. There is no alternative. Some of the *substituted* meanings of the text are the following:—

The snake, or "serpent," means the Devil, or Satan. The threatened death of Adam means his fall from a *holy state* of beastly ignorance to a *criminal* state of knowledge; and the penalty falls not only on him and Eve, but also on the one hundred and twenty generations (120,000,000,000) of their posterity, and on all brutes. The biting of Adam's heel by the snake means the temptations of Adam and his posterity by Satan, and his dominion over them, and his subjecting them to everlasting punishment. Could anything be farther fetched, or more fanciful?

The bruising of the serpent's head by Adam's heel means God's sacrificing His own innocent son, to redeem and save one out of a thousand of the human race, on condition that they repent of the *sin of Adam*, and believe this strange

story of Adam's fall and Christ's redemption. The beasts are not to be redeemed, but are to suffer on.

All this was known and foreordained from the beginning by a merciful, all-wise, and almighty Being; and He thus, by this story of the Garden of Eden, reveals His plan, and by inspiration enables the select few to give the revelation this strained construction. Could anything be more unworthy of rational belief? Can any rational person believe that God punished His own innocent son for Adam's transgression, and call that "justice"?

This account of God's turning Adam and Eve out of Paradise, for fear they would eat of the tree of life, and thus become gods, is of like character with the story of the destruction of the Tower of Babel, to prevent its builders from getting into heaven; and they both prove what is so often asserted in the Bible, — that "God is a jealous God."

Almost all nations have, or have had, some such primitive and puerile theory of the origin of the human race; and many of them, like the one in question, have been subsequently, when the race became more intelligent, but still unwilling to part with a long established superstition, altered by a strained mythical construction. Scores of instances of this nature might be cited.

It ought to be said, however, in favor of the orthodox Christianity that, notwithstanding its theological errors, it has done much good in the world. It might have done much more. Orthodox Christians have been at all times my best neighbors and kindest friends. They practice most of the humanitarian virtues, although not to be found in their creeds; but they predicate the *obligation* of these virtues, not upon their own *inherent* goodness and worth, but upon miraculous divine *commands*. But for these commands, they say, there would be no such thing as virtue or goodness, right or wrong; and one action would be as meritorious as another. Time and evolution are doing much to lessen and eliminate these relics of man's ignorance. But the virus of these myths is still in the church. Thousands on thousands of young men and women, as well as the old, are daily going back to these flesh pots of Egypt. A Methodist minister, in my neighborhood, in a sermon against the modern doctrine of evolution, said that he "*thanked God for an old-fashioned Hell,*" and many of the congregation responded—"Amen!"

## MORALS AND FIG-LEAVES.

BY HELEN LONDON.

IN the Hebraic tradition of the origin of mankind, we are told that the Edenic pair, from whose loins have proceeded the innumerable generations of beings we call the human race, were innocent of that emotion we name "shame" until the wily serpent inducted Mother Eve into the pleasures of apple-eating. Weak man, as ever since, succumbed to her blandishments and partook with her of the feast, with the result that for the first time they perceived their nakedness and made for themselves garments, or, as one famous rendering has it, "breeches" of fig-leaves.

To the student of the development of moral ideas, this little incident in the traditional record presents a problem of great interest. The fig-leaf of Adamic days, in its variety of counterparts at the present day as well as in ages past, is the symbol of an idea that has no assured stability of form, nor ever has had; and to the student it is a perplexing, a baffling pursuit—this of endeavoring to grasp the substance of the idea which shadows itself as modesty or shame. From the Puritan maiden who swathes herself from chin to sole, to the Circassian slave-girl who will permit her body to be stripped before she will let her face be seen unveiled; from the Indian maiden of the North Pacific who goes ungirt while mistress of herself, to the same maiden when she becomes a man's property and girds her loins; from the many times enwrapped Boston girl in her boudoir, to the same girl upon the bathing-beach,—the chase of the idea is an interesting and not wholly satisfying one.

That there is something of actual import in the problem is evidenced by the frequent homilies upon different phases through the pulpit and public press. Dancing, theatre-going, *décolleté* dress, the nude in Art, each comes in for its share of a denunciation which is seldom discriminating, and always evades an assertion of fundamental principles and their reasons.

Recent expressions of opinion upon these phases, through the press, pulpit, and action of governing bodies of art-galleries, etc., seem almost wholly in the line of upholding a conventionality which it cannot be wholly unjust to term unreasoning, since it gives no reasons. The moral importance of the problem makes it permissible to ask whether these expressions of opinion have a warrant in good sense; whether they are based on real "delicacy." Too often the epigrams wrought with this word are "full of sound and fury, signifying nothing." But when the searcher for truth turns to the fields of Nature, where truth can still be run to its lair, there comes ever the irrefutable proof that Nature, in her natural places and processes, is the essence of delicacy, as she is of strength. To approach these problems with this thoroughly accepted, is to have a clearer light on the way.

A study of the ideas and customs of the nations of the past as well as of the present, brings a heavy weight of evidence to show that notions of modesty, even more than of morality, are mainly acquired variations of, or inventions based upon, a very few fundamental principles, these in themselves having little or no relation to modesty or morality in the abstract. Why else their great diversity and discordance from age to age, from year to year, even in nations of the same day? Is it not that we invent our notions from time to time, teaching them as absolute truths to the younger generation, rather than anything which we learn from Nature? If our modern morals are too *décolleté*, surely we alone are responsible for the paucity of fig-leaves.

It can be justly asked "Is not the true state of affairs this — that not our dresses, but our morals are cut too low?" In an affirmative answer there is more than a grain of truth. If we would cut our morals so that they would fit our bodies more nearly, there would be less necessity for clothes to cover the balance. Would it not, then, be the higher and wiser policy to adopt a less *décolleté* style for our morals and avoid the occasion for indelicacy in dress? But we preach and we practise a contemning of the body, we vilify and degrade the physical member of our human trinity, so that in sheer self-defence against ourselves we must wear some form of the primeval fig-leaf. Does this seem an exaggeration, a vagary? Among the earliest ideas we inculcate in our child is an unreasoning, unreasoned contempt, a despis-

ing of certain portions and functions of the body. Year by year, we educate him faithfully in these notions, without logical reason assigned. If the child be a girl, we gradually increase the extent of the despicable portion, making the foundation of a "double standard of morality," which leads to some of the most wretched features of modern social life.

At puberty, when Nature rarely fails to impress new questionings over a wider range of thought, when the difference of sex and the origin of life and its functions become matters of inquiry—at the very time when Nature prompts a search for knowledge, we increase our efforts at repression, we withdraw (as we think) all knowledge that is sought; and, by a negative, if not an affirmative education, we inculcate a vicious, *quasi* knowledge of shame and evil which did not exist before. We do worse than that—we create the very shame and evil, till then non-existent. Our child is surrounded by other children and by servants more viciously wise than himself, from whom he adds to his degrading learning; and thus, well-equipped to see harm, he fails not to find it. Unfortunately, not even here does our work end—we have repressed his natural tendencies, we have kept from him all wise counsel, we have turned his impulses into unnatural, secret, vicious channels, and we have set in train fresh proof of that maxim of human perversity, that "stolen waters taste sweet."

Right here lies a most certain truth—that we ourselves educate our children in evil. It is plain that if we taught them that a woman's bosom was a part of her body entitled to the highest honor and respect, without evil in itself and without reason for evil, no one would find shame in the sight of it. If we taught that a woman's leg was as honorable a portion of her as a man's is of him, and with no more evil in it, none would be found. We teach that they are full of evil and should be hidden from view—is it any wonder, then, that men want to see them? Is it strange that our young men—and old—crowd the spectacular drama, and find too often only a lustful pleasure in beholding the most beautiful outlines earth can show—the outlines of woman's form? It is our fault that they see aught but the beauty—it is our fault that aught but the beauty is to be seen.



Nature gives no reason why a woman's form is less worthy to be viewed than a man's. Nature makes man's body the model of human strength,—woman's, of human beauty. Why should not both alike be viewed? In the days when woman's body was revered most in its beauty and in its use by the ancient Greeks, its form and flesh were least concealed from view; and then, if we are to believe the national historians, was Greek modesty and purity the greatest. If the wondrously beautiful conceptions of their sculptors, the objects of their adoration and of hundreds of later generations, must now be passed with averted eye, may not one ask, "Whose the shame,—theirs or ours?" If *then* a woman as she approached that most sacred of her states, maternity, was an object of increased reverence, to be passed on the street by men with uncovered head and respectful bow, friend and stranger alike,—and *now* the pregnant woman upon the street is the object of rude gaze, of jesting or disapproving remark, of imputation of immodesty, from man and woman alike—is it captious to ask wherein our modesty excels the half-barbaric Greek? Would that here we might have an atavism!

Conceding that our daughters are contaminated by viewing the ballet, whence but from us did they get the idea of contamination? If the *danseuse* exerts indecent endeavors to allure our sons, who but ourselves make our sons respond to her allurements? But one may question whether the ballet and spectacle need be so immodest to the looker-on. I remember one night at one of Kiralfy's most beautiful and imposing spectacles, I watched with interest a young man who had never seen such a performance. Of a really religious training, remarkably pure in thought as in life, he had reluctantly joined a party of friends at the theatre. When the curtain went down at the close of the first act, shutting out the hundreds of lovely female forms in the scenery and garb of Fairyland, he turned to me and said: "Is it not beautiful? Is it not exquisite? And they told me this was indecent and immoral! How I wish that I could bring my sister to see it!" I was satisfied with the effect on him. I was satisfied upon another point—that as there are ballets and ballets, so there are spectators and spectators.

The stage needs no defence here. Those who know it

well, know that there is far less immorality in what it puts forth than is charged by those who never enter a theatre; that the immorality of the *danseuse* is more a matter of assertion than a proof; that the lewdness of her performances is very largely a question of the state of mind of the observer. Misused and condemned as it has been, there is no saying truer in essence than "To the pure all things are pure." *Honi soit qui mal y pense* applies with not less force to the theatre-goer than to the mediæval courtier. The pure mind cannot receive impurity, if it is *wisely* pure; and our ability to withstand what is not pure depends mainly on whether we were taught to receive it. That there is much of vileness in thought and situation on the stage, no one questions. But let us ask ourselves two questions: How much vileness do we see that is such only because it is in our minds? How much of it is due to the demand for it, fostered by us?

To our customary notions of modesty and to our methods of imparting them, is due the great popularity of "erotic fiction." Is it not strange that by far the majority of readers of the impure books of the day are women—especially young women and girls? That it is so, book-venders and librarians everywhere know. Let it be known that a book in a library is slightly improper and it is at once sought after by our innocent maidens. They "want to know, you know"—what? A more or less vague, indefinite something, which they know exists; unnamed, mysterious emotions which they feel impelled to taste,—a feast to which they go prepared by their mothers to receive only a ruinous excitement.

No one of discernment, who has had much to do with children in their bodily life, but knows that the majority are victims of most disastrous vices, over which their mothers throw fig-leaves, to hide them from their sight! Physicians combat these and their resulting evils with little zeal or success, knowing as they so well do, that their efforts are mainly thrown away, while the present notions of modesty continue to be accepted as the highest type of virtue. Rare is it now, and ever has been, that a woman "goes to her husband as unmarred as an ideal in a dream." When she does—in the sense in which the words quoted were used—the physician knows the chances are at least equal that there

will be one more victim, willing or unwilling, to the vices which threaten to bankrupt the marriage and home relations — vices toward remedying which much could easily be done, were it not that the hands of physicians and sociologists are tied by those who believe we should follow “the strict rule of reserve in speech” — a tacit, however unintentional, upholding of the hidden practice, howsoever hideous it may be.

No greater mistake has the world ever made than its conventional accepting of innocence for virtue. Ignorance may be purity, it can never be virtue. No soul in, as we say, “virgin purity” can ever have the worth of matronly virtue. Nothing is so easy to sully as innocence, nor so difficult as virtue. In this realm, ignorance is not bliss: it is the path to a very tormenting hell.

We fail always when we try to raise our children in innocence. We would be fortunate if we did nothing worse than fail. But in our serene ignorance of, or blind opposition to, the ways of Nature, we force them into a seeking and finding of a vicious knowledge, which arms them with the weapons that turn against virtue. What wonder then that they so often fall in the fight, are made prisoners by the powers of evil? The fig-leaves we have put on them are not coats of mail — they simply serve to indicate to the enemy the vulnerable points. We teach them not the things to be guarded against, either in themselves or in others; and if our sweet daughter is tainted by the pressure of the *roué's* arm in the waltz, I fear it is because we have not taught her to recognize and shun the *roué*, nor to repel contagion when it is present. And if it is our son who is the *roué*, as he may likely be with some other mother's daughter, I fear that there, too, we must bear the blame. For did not our conventional ideas of modesty prevent our rightly instructing him?

We do need to educate in morals, but we need fewer fig-leaves. We do not need, as was recently thought necessary in one of our large cities, to put trousers on the Apollo Belvidere, nor a gown on the Venus of Milo. We can learn that lust is not for things permitted, but for things forbidden. We can teach our sons and daughters to see no harm where none exists. We can teach them the inherent nobility and decency of the human form. We can educate

them in the essence of delicacy, which is to think no indelicacy.

. . . . .

To those who fear to have rotten timbers taken away, lest harm come to the edifice, it will be an easy task to find in the foregoing a plea for the abolition of all modesty. For such and for those who form judgments from "a casual glance," this article was not written.

## THE FROTH AND THE DREGS.

BY B. O. FLOWER.

ON entering one of our largest bookstores, a short time since, my eye rested on two immense tiers of books, placed side by side on one of the most prominent counters. Both were meeting with immense sales. One of the volumes was bound in black, very plain. The delicate binding of the other was protected by white-glazed paper covers, printed in gold. The sight of these two books, placed in juxtaposition, produced in me a distinct mental shock,—a strange thrill, such as I remember experiencing a few months since, when, glancing over one of the New York dailies, I noticed an extended description of a magnificent ball given by the Vanderbilts at Newport, while in another column, I saw a wonderfully pathetic pen-picture of the terrible want then being experienced in the little cottages and hovels of the poor strikers on the Vanderbilt road. It almost seemed, as I beheld in bold antithesis those graphic scenes of gilded splendor and grim squalor, that triumphant capital sought to exasperate, vanquished labor beyond the bounds of human forbearance; and I felt a shock akin to the experience one undergoes when first reading the pictures of the giddy, voluptuous, and selfish life at the Louvre, immediately preceding the French Revolution, while the multitudes of Paris saw the world through fierce eyes sunken far into their sockets by hunger long endured. Something of the same sensation, I experienced on seeing these two books side by side: one, "Society as I Have Found It," by Ward McAllister; the other might have been termed, "Society as I Have Found It," by General Booth. One being an elaborate description of the froth on the surface of social life to-day, the other a picture of the dregs of civilization; vivid glimpses of the upper and lower strata of our modern life. The world of indolent frivolity, and the world of crime, degradation, and poverty. The denizens of the one,—idlers who eat, drink, dance, and are consumed in a butterfly existence; the other filled with gaunt, hungry, hol-

low-eyed millions to whom life is an awful curse. The one basking in the sunshine of wealth, floating on the surface, held up by the great current beneath; the other doomed to dwell in perpetual night, having settled or been forced to the bottom where the pressure is greatest, and hope dies.

These pen pictures of two phases of our civilization are written by persons who may be justly termed experts in the fields they discuss; and though, from a purely literary point of view, their work is vulnerable, there is no reason to believe that either has given other than a truthful narration, for each is in perfect *rapport* with his theme: each knows the ground over which he journeys, as thoroughly as a trapper knows the mountain trail.

\* The first of these works, as I have indicated, treats of what may be termed the froth of society, that is, the wealth-laden idlers who live chiefly for themselves, for the petty triumphs in fashion's hollow life, those who enjoy the superficial and arti-

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\* I am aware that several critics have assailed Mr. McAllister as rendering a false picture of the gay world of fashion in New York. The fact remains, however, that this same giddy world of wealth and pleasure have not repudiated their leader. No renunciation of him has come from this charmed circle; on the contrary, the following extract from the *New York Herald* of Dec. 9, gives an idea of the position held by Mr. McAllister at the present time. This, together with the fact that for years he has been the idol of the "four hundred," is sufficient to refute the claim that the picture he presents of the froth of society is misleading.

Delmonico's white and gold ball room was ablaze with light last night.

This is the eighteenth year of the Patriarchs' ball, and the occasion just celebrated was the largest and most brilliant of any ever given.

As it was opera night, none of the guests came until eleven o'clock.

They entered the blue room, and then the second salon, where the Hungarian band from Buda-Pesth played all the evening.

There were fully three hundred and seventy-five people present, just twenty-five less than the famous four hundred.

William C. Whitney, W. Watts Sherman, and John Alsop Griswold are the newly elected Patriarchs.

Supper was announced at half past twelve.

#### THE LEADERS.

Mr. McAllister led with Mrs. Astor, followed by the Duchess of Marlborough with Mr. W. C. Whitney, the Duke of Marlborough with Mrs. Whitney, Mr. Cornelius Vanderbilt with Mrs. Van Rensselaer Cruger, and Mr. Chauncey M. Depew with Mrs. Paran Stevens.

The cotillion began at half-past one, and was danced in English fashion continually until half-past two, Mr. Harry Le Grand Cannon leading with Miss Anne Cameron, who is the first debutante to have led.

Mr. McAllister danced with Mrs. Michael Herbert, and on his right and left were Mrs. Burke-Roche, Miss Wetmore, Miss Amy Bend, Mrs. Yznaga, Miss Randolph, Miss Grace Wilson, Miss Sallie Hargous, Mrs. W. A. Duer, Mrs. Robert Goelet, Miss Angelica Gerry and Miss Chapman.

The Patriarchs danced until a late hour, and when they began their departure, clad in greatcoats and wrapped in sables and seals, they presented a picture (with the snow and the street lamps and Madison Square Garden as a setting) that would have delighted the heart of Gérôme.



ficial life of what is known as society, when millions of their fellowmen are being forced to the depths of want and often into crime. Millions of their brothers and sisters are starving, or stealing that they may not starve, who might be saved, who would be redeemed if a small part of this wealth-laden circle in every metropolis would work in concert, and intelligently expend a liberal portion of the immense riches that they annually waste, and which few if any of them have created with their own hands, or by personal exertion outside of speculation. It is this world of idlers which Mr. McAllister describes and extols. Some of them owe their prestige largely to the fact that their ancestors were early settlers of Manhattan Island; others have inherited vast fortunes, while a third class are the children or representatives of the commercial brigands of to-day,—men who spend months converting into cash a portion of their vast resources, who then withdraw their deposits from the metropolitan banks in such a manner as to send a thrill of uncertainty through the complex fabric of commercial life; who follow this with gloomy rumors and predictions of impending business failures through the press; who watch an opportune moment, when with tiger spring they convulse the speculative world, crushing banks, bankrupting hosts of individuals, causing many deaths and more misery, but at length they emerge from the chaos they have caused with millions of ill-gotten gains—millions of dollars, not a cent of which has been earned, millions of dollars won by gamblers who have money enough to take away all risks on their part and who understand how to utilize for their purses a system of legal gambling which is daily sapping the moral force of the nation and paralyzing legitimate trade. It is from one of these three classes that we find the majority of fashion's votaries in our great metropolis. And how do they live in this charmed circle? They winter in New York and summer at Newport, or some other resort of wealth and fashion. Winter and summer alike they feast, drink, and dance. In summer they drive in state. In winter they attend the opera. This, of course, does not command all their time, but it represents the great absorbing thoughts that fire and control life. This round of gayety is to this element what invention is to Edison, what evolution was to Darwin, what conquest was to Alexander, what the redemption of humanity was to Jesus,—the motive power that most

sways life; the over-mastering impulse of existence; the thought or desire, before which all else becomes subordinate. Let us examine a few etchings from Mr. McAllister's gallery that we may acquire a better idea of the essential spirit of this life. Here we have a picture of a typical picnic at Newport:

"We would meet at Narragansett Avenue at 1 P. M., and all drive out together. On reaching the picnic grounds, I had an army of skirmishers, in the way of servants, thrown out, to take from each carriage its contribution to the country dinner. The band would strike up, and off the whole party would fly in the waltz, while I was directing the icing of the champagne, and arranging the tables; all done with marvellous celerity. Then came my hour of triumph, when, without giving the slightest signal (fearing some one might forestall me, and take off the prize), I would dash in among the dancers, secure our society queen, and lead with her the way to the banquet. Now began the fun in good earnest. The clever men of the party would assert their claims to the best dishes, proud of the efforts of their cook, loud in their praise of their own game pie, which most probably was brought out by some third party, too modest to assert and push his claim. Beauty was there to look upon, and wit to enliven the feast. The wittiest of men was then in his element, and I only wish I dared quote here his brilliant sallies. The beauty of the land was also there, and all feeling that they were on a frolic, they threw hauteur, ceremonial, and grand company manners aside, and, in place, assumed a spirit of simple enjoyment. Toasts were given and drunk, then a stroll in pairs, for a little interchange of sentiment, and then the whole party made for the dancing platform, and a cotillion of one hour and a half was danced till sunset. As at a "Meet," the arrivals and departures were a feature of the day. Four-in-hands, tandems, and the swellest of Newport turn-outs rolled by you. At these entertainments you formed life-time intimacies with the most cultivated and charming men and women of this country.

These little parties were then, and are now, the stepping-stones to our best New York society. People who have been for years in mourning and thus lost sight of, or who, having passed their lives abroad and were forgotten, were again seen, admired, and liked, and at once brought into society's fold. Now, do not for a moment imagine that all were indiscriminately asked to these little fetes. On the contrary, if you were not of the inner circle, and were a newcomer, it took the combined efforts of all your friends' backing and pushing to procure an invitation for you. For years, whole families sat on the stool of probation, awaiting trial and acceptance, and many were then rejected, but once received, you were put on an intimate footing with all."

From Newport we turn to New York and view a banquet for seventy-two persons, given by a member of this exclusive class. The cost of this banquet was to be ten thousand dollars. Again we quote Mr. McAllister:—

"Accordingly, he (the gentleman giving the banquet) went to Charles Delmonico, who in turn went to his *cuisine classique* to see how they could possibly spend this sum on this feast. Success crowned their efforts. The sum in such skilful hands soon melted away, and a banquet was given of such beauty and magnificence, that even New Yorkers, accustomed as they were to every species of novel expenditure, were aston-

ished at its lavishness, its luxury. The banquet was given at Delmonico's, in Fourteenth Street.

There were seventy-two guests in the large ball-room, looking on Fifth Avenue. Every inch of the long extended oval table was covered with flowers, excepting a space in the centre, left for a lake, and a border around the table for the plates. This lake was indeed a work of art; it was an oval pond, thirty feet in length, by nearly the width of the table, inclosed by a delicate golden wire network, reaching from table to ceiling, making the whole one grand cage; four superb swans, brought from Prospect Park, swam in it, surrounded by high banks of flowers of every species and variety, which prevented them from splashing the water on the table. There were hills and dales; the modest little violet carpeting the valleys, and other bolder sorts climbing up and covering the tops of those miniature mountains. Then, all around the inclosure, and in fact above the entire table, hung little golden cages, with fine songsters, who filled the room with their melody, occasionally interrupted by the splashing of the waters of the lake by the swans, and the cooing of these noble birds, and at one time by a fierce combat between these stately, graceful, gliding white creatures. The surface of the whole table, by clever art, was one unbroken series of undulations, rising and falling like the billows of the sea, but all clothed and carpeted with every form of blossom. It seemed like the abode of fairies; and when surrounding this fairyland with lovely young American womanhood, you had indeed an unequalled scene of enchantment. But this was not to be alone a feast for the eye; all that art could do, all that the cleverest men could devise to spread before the guests such a feast as the gods should enjoy, was done, and so well done that all present felt, in the way of feasting, that man could do no more! The wines were perfect. Blue seal Johannisberg flowed like water. Incomparable '48 claret, superb Burgundies, and amber-colored Madeira, all were there to add to the intoxicating delight of the scene. Then, soft music stole over one's senses; lovely women's eyes sparkled with delight at the beauty of their surroundings, and I felt that the fair being who sat next to me would have graced Alexander's feast."

After reading the above it is well to call to mind the awful facts, that out of 39,679 deaths in New York City in 1889, 7,059 died in the hospitals, insane asylums, and work-houses; more than one person in every six who died in New York, died in public institutions, and 3,819 of those who died were thrown into the Potter's field, too poor for decent burial. In the presence of such frightful facts the heartless selfishness which characterizes the reckless extravagance of the society of which Mr. McAllister writes, assumes criminal proportions. But this is by no means the only evil which attends such life. The very atmosphere cannot fail to stifle the highest nature in man, to dwarf, shrivel, and kill the true ethical or spiritual essence of his being, which instinctively turns to humanity's miseries with soul overflowing with love, which ever shrinks from a mere selfish, butterfly existence as one shrinks from an adder, knowing it will poison unto death the highest attributes of the soul. The

following extract well illustrates the blighting influence upon the individual, as well as the false idea of life that such an existence inculcates. A wealthy friend, on sailing for Europe, placed in the charge of Mr. McAllister his wife and daughter, requesting him to give them a splendid ball at Delmonico's, and draw on him for all expenses. At this our author proceeds:—

"I replied: 'My dear fellow, how many people do you know in this city whom you could invite to a ball? The funds you send me will be used, but not in giving a ball.' The girl being a beauty, all the rest was easy enough. I gave her theatre party after theatre party, followed by charming little suppers, asked to them the *jeunesse dorée* of the day; took her repeatedly to the opera, and saw that she was always there surrounded by admirers; incessantly talked of her fascinations; assured my young friends that she was endowed with a fortune equal to the mines of Ophir, that she danced like a dream, and possessed all the graces, a sunbeam across one's path; then saw to it that she had a prominent place in every cotillion and a fitting partner: showed her whom to smile upon, and on whom to frown; gave her the *entrée* to all the nice houses; criticised severely her toilet until it became perfect; daily met her on the avenue with the most charming man in town, who by one pretext or another I turned over to her; made her the constant subject of conversation; insisted upon it that she was to be the belle of the coming winter; advised her parents that she should have her first season at Bar Harbor, where she could learn to flirt to her heart's content, and vie with other girls. Her second summer, when she was older, I suggested her passing at Newport, where she should have a pair of ponies, a pretty trap, with a well-gotten-up groom, and Worth to dress her."

Another significant illustration of the artificiality of this existence and its essentially demoralizing effect is seen in the *naïve* observation of McAllister:—

"The highest cultivation in social manners enables a person to conceal from the world his real feelings. He can go through any annoyance as if it were a pleasure; go to a rival's house as if to a dear friend's; smile and smile, yet murder while he smiles."

In speaking of the Patriarchs' balls which are such a feature of society life among the "four hundred," Mr. McAllister describes how he fought for and secured entertainments of the most luxurious and expensive character possible. "We must spare no expense to make them a credit to us and to the great city in which they are given." A credit to squander money, while thousands in the compass of New York are slowly starving for the lack of money to buy the food the system craves! But our author continues:—

"The social life of a great part of our community, in my opinion, hinges on this and similar organizations, for it and they are organized social power, capable of giving a passport to society to all worthy of it."

And now let us see a typical man of this mad, gay world:

"I must here give a slight sketch of one of the handsomest, most fascinating, most polished, and courteous gentleman of that or any other period. We will here call him the major; amiability itself, a man both sexes could fall in love with. I loved him dearly, and when I lost him I felt much of the charm of life had departed with him. At all these country parties, he was always first and foremost. My rapidity of thought and action always annoyed him. 'My dear fellow,' he would say, 'for heaven's sake, go slow; you tear through the streets as if at some one's bidding. A gentleman should stroll leisurely, casting his eyes in the shop windows, as if in search of amusement, while you go at a killing pace, as if on business bent. The man of fashion should have no business.' Again, he had a holy horror of familiar garments. 'My dear boy,' he would smile and say, 'when will you discard that old coat? I am so familiar with it, I am fatigued at the sight of it.'

"On one subject we were always in accord — our admiration for women. My eye was quicker than his, and I often took advantage of it. I would say, 'Major, did you see that beauty? By Jove, a most delicious creature!' 'Who? Where?' he would exclaim. 'Why, man,' I replied, 'she has passed you; you have lost her.' 'Lost her! How could you let that happen? Why, why did you not sooner call my attention to her?'"

From this pitiful picture of life, that is worse than a failure, of the froth on humanity's bosom, where riches are squandered while manhood is enervated; where the noblest ideals are eclipsed by life devoted to gratification of the "lust of the eye, the lust of the flesh, and the pride of life," we turn to view another phase of our civilization. In his "Darkest England," we have a vivid picture of society as General Booth has found it. Here a colossal figure looms up in a world of darkness; a voice comes from the brink of the abyss, speaks in tones that ring around the globe, a clarion voice pleading in humanity's name for the submerged millions. On the verge of the social pit the eye of the looker-on dilates with horror; the voice is hushed, the heart sickens. As one descends it grows darker. Here society exists in strata.

In London alone there are more than three hundred thousand souls who are hanging on the brink of the abyss, whose every heart-beat thrills with fear, whose lifelong nightmare is the dread that the little den they call home may be taken from them. Beneath them at the door of starvation are over two hundred thousand human lives; still further down we find three hundred thousand in the stratum of the starving, in the realm where hunger gnaws night and day, where every second of every minute, of every hour, of every day, is crowded with agony. Below the starving are the homeless;

they who have nothing with which to buy a lodging in the worst quarters; they who sleep out the year round, hundreds of whom may be found any night on the cold stone slabs along the Thames embankment. Some have a newspaper between themselves and the damp stones, but the majority do not even enjoy this luxury! This army of absolutely homeless in London numbers thirty-three thousand.

Below these hells we find others still more terrible — the hells of vice and crime. In Great Britain alone are one hundred thousand prostitutes, and General Booth estimates at least a hundred thousand more very poor women whom poverty has driven to secretly increase their earnings by their shame.

There are twenty-two thousand juvenile thieves. There are thirty-two thousand nine hundred and ten reputed known thieves out of prison, and thirty-two thousand in jail. There are half a million drunkards in Great Britain. The court record for a single year showed the conviction of one hundred and sixty thousand drunkards. It is estimated that sixty thousand drunkards annually die in the United Kingdom. Below these hells are others where all light has vanished, where we hear naught but the confused roar of angry brutes, madly, blindly grappling whom they may destroy. Then we have the public institutions, laden with the miserables. According to the official reports of the Register-General, one person in every five in London dies in the workhouse, the hospital, or the lunatic asylum. In 1887, there were eighty-two thousand five hundred and forty-five deaths in London. Of these seventeen thousand perished in public institutions.

Such are the rugged outlines which meet the eye as one glances at this world at the social nadir; such the general facts as from the verge of the abyss one's eyes wander down the strata that commence with the honest, industrious poor, and end with the hopelessly depraved. This is the world of which General Booth writes and in which he has already accomplished wonders.

In order to gain a better idea of this life it is necessary to notice a few typical cases. We have just examined the sketch drawn by Mr. McAllister of a typical life in his butterfly world; let us now squarely face life in the abyss. That we may better know this world we must approach it.



From a distance the scene startles and staggers the mind. A closer examination touches the heart. He who would fathom its misery must look upon individual scenes and cases which are strictly typical. In this manner the truth is brought home — what before was merely *seen* is now *felt*, and the tragic aspects of the life of the submerged millions is sensibly appreciated. Let us, then, glance at some typical aspect of life in this grim world. The following picture would form a striking background for a setting showing the ten-thousand dollar banquet at Delmonico's, so felicitously described by Mr. McAllister. It is taken from the record of one of General Booth's most trusted officers, who was sent to investigate the actual condition of the homeless poor in one portion of London.

"Just as big Ben strikes two, the moon, flashing across the Thames, and lighting up the stone-work of the embankment, brings into the relief a pitiable spectacle. Here on the stone abutments, which afford a slight protection from the biting wind, are scores of men, lying side by side, huddled together for warmth, and, of course, without any other covering than their ordinary clothing, which is scanty enough at the best. Some have laid down a few pieces of waste paper, by way of taking the chill off the stones, but the majority are too tired even for that."

General Booth's officer interviewed these homeless ones, three hundred and sixty of whom he found, one night, sleeping out along the Thames, between Blackfriar's and Westminster. We will select a few cases.

No. 1. "I've slept here two nights. I'm a confectioner by trade. I come from Dartford. I got turned off because I'm getting elderly. They can get young men cheaper, and I have the rheumatism so bad. I've earned nothing these two days. I thought I could get a job at Woolwich, so I walked there, but could get nothing. I found a bit of bread in the road, wrapped up in a bit of newspaper: that did me for yesterday. I had a bit of bread and butter to-day. I'm fifty-four years old. When it's wet, we stand about all night, under the arches."

No. 2. "I'm a tailor. Have slept here four nights running. Can't get work. Been out of a job three weeks. It was very wet last night. I left these seats, and went to Covent Garden Market, and slept under cover. There were about thirty of us. The police moved us on, but we went back as soon as they had gone. I've had a pen'worth of bread, and pen'worth of soup during the last two days,—often goes without altogether. There are women sleep out here. They are decent people, mostly charwomen and such like, who can't get work."

No. 3. Elderly man: trembles visibly with excitement at mention of work: produces a card, carefully wrapped in old newspaper, to the effect that Mr. J. R. is a member of the Trade Protection League. He is a waterside laborer. Last job at that was a fortnight since. Has earned nothing for five days. Had a bit of bread this morning, but not a scrap since. Had a cup of tea, and two slices of bread yesterday, and the same the day before. The deputy at a lodging house gave it to him.

He is fifty years old, and is still damp from sleeping out in the wet, last night.

No. 4. Been out of work a month. Carman by trade. Arm withered, and cannot do work properly. Has slept here all the week. Got an awful cold through the wet. Lives at odd jobs [they all do]. Got sixpence yesterday for minding a cab, and carrying a couple of parcels. Earned nothing to-day. Has been walking about all day, looking for work, and is tired out.

No. 5. Youth, aged sixteen. Sad case. Londoner. Works at odd jobs, and at matches selling. He has taken 3d. to-day; *i. e.*, net profit, 1½d. Has five boxes still. Has slept here every night for a month. Before that, slept in Covent Garden Market, or on doorsteps. Been sleeping out six months. Has had one bit of bread to-day: yesterday had only some gooseberries and cherries, *i. e.*, bad ones that had been thrown away. Mother is alive. She "chucked him out," when he returned home on leaving Feltham, because he couldn't find her money for drink.

These are fairly typical cases, writes General Booth, of the army of nomads, who are wandering homeless through the streets, and he continues:—

"Work, work! it is always work that they ask. The Divine curse is to them the most blessed of benedictions. 'In the sweat of thy brow thou shalt eat thy bread,' but alas for these forlorn sons of Adam! they fail to find the bread to eat, for society has no work for them to do. They have not even leave to sweat. Most of them now do more exhausting work in seeking for employment than the regular toilers do in their workshops, and do it, under the darkness of hope deferred which maketh the heart sick."

Below this tier of the homeless who have hope looms up the despairing multitude, they who battle until body fails and brain reels, they who, confronted by the spectre of crime and the spectre of death, hear the voice of fate cry Choose! Here is a typical case:

"A short time ago a respectable man, a chemist, in Holloway, fifty years of age, driven hard to the wall, tried to end it all by cutting his throat. His wife also cut her throat, and at the same time they gave strychnine to their only child. The effort failed, and they were placed on trial for attempted murder. In the Court, a letter was read which the poor wretch had written before attempting his life:—

"My dearest George:—Twelve months have I now passed of a most miserable and struggling existence, and I really cannot stand it any more. I am completely worn out, and relations who could assist me won't do any more, for such was uncle's last intimation. He never inquires whether I am starving or not. Three pounds,—a mere flea-bite to him—would have put us straight, and with his security and good interest might have obtained me a good situation long ago. I can face poverty and degradation no longer, and would sooner die than go to the workhouse, whatever may be the awful consequences of the steps we have taken. We have, God forgive us! taken our darling Arty with us, out of pure love and affection, so that the darling should never be cuffed about, or reminded or taunted with his heart-broken parents' crime. My poor wife has done her best at needle-work, washing, house-

minding, etc., in fact, anything and everything that would bring in a shilling; but it would only keep us in semi-starvation. I have now done six weeks' travelling from morning till night, and not received one farthing for it. If that is not enough to drive you mad,— wickedly mad,— I don't know what is. No bright prospect anywhere; no ray of hope. May God Almighty forgive us for this heinous sin, and have mercy on our sinful souls, is the prayer of your miserable, broken-hearted, but loving brother, Arthur. We have now done everything that we can possibly think of to avert this wicked proceeding, but can discover no ray of hope. Fervent prayer has availed us nothing; our lot is cast, and we must abide by it. It must be God's will, or He would have ordained it differently. Dearest Georgy, I am exceedingly sorry to leave you all, but I am mad — thoroughly. You, dear, must try and forget us, and, if possible, forgive us; for I do not consider it our fault we have not succeeded. If you could get three pounds for our bed, it will pay our rent, and our scanty furniture may fetch enough to bury us in a cheap way.

'Don't grieve over us or follow us, for we shall not be worthy of such respect. Our clergyman has never called on us or given us the least consolation, though I called on him a month ago. He is paid to preach, and there he considers his responsibility ends, the rich excepted. We have only yourself and a very few others who care one pin what becomes of us; but you must try and forgive us, is the last fervent prayer of your devotedly fond and affectionate, but broken-hearted and persecuted brother.

[Signed] R. A. O——.'

This is an authentic human document, a transcript from the life of one among thousands who go down inarticulate into the depths. They die and make no sign, or, worse still, they continue to exist, carrying about with them, year after year, the bitter ashes of a life from which the furnace of misfortune has burnt away all joy, hope, and strength."

Then we have the vicious — a world so terrible that one sickens as he explores it; a world into which the vast majority have been forced by the selfishness and brutality of our present civilization — the inhumanity of man.

My present purpose does not necessitate prosecuting our investigations through the hell of vice and crime into which the vast majority of those in the upper stratum, who do not perish in the battle for bread, ultimately sink. I simply desire to place in antithesis the idle rich and the starving poor, and by typical illustrations lead men and women to *think*. If a general agitation can be brought about, if the element in life to-day which appreciates the importance of an active ethical education can be marshalled in line, it will not be long before methods for the amelioration and redemption of society's submerged millions will be at hand. The crying need of the hour is a great moral agitation, an aggressive movement on ethical lines; the conscience of civilization must be appealed to in the name of justice, civilization, and our common humanity.

## WOMAN'S DRESS.

BY FRANCES E. RUSSELL.

LEADING thinkers among women of broad culture have long been pleading for the freedom of woman, urging her right to education, wages, and suffrage on an equality with man. The world is slow to yield their demand. Did it ever occur to you that this is partly owing to the appearance of woman which seems to vitiate her claim to equality?

She asks for education, but she usually arrays herself in a style that suggests either the infantile or the idiotic. She seeks for work and good wages, but stands before the world fettered by her clothing and weighted with unnecessary drapery and trimmings. She would engage in political affairs, but seems unable to apply common-sense principles to the clothing of her own body.

Handicapped and weakened as woman has been by her costumes, she has again and again, in individual cases, proved the justice of her claims to equality on intellectual, industrial, and social planes of activity. These facts make small impression on the judgment of mankind, compared with the proofs of her inferiority daily visible to the naked eye. From the crown of her head, decked with the stuffed bodies or wings of slaughtered song-birds, or cruelly weighted with jet and glass ornaments, to the soles of her feet perched upon disease-producing heels or standing in shoes too thin-soled to protect from dampness,—the average dress of the average woman pronounces against her the verdict; fickle, frivolous, incompetent!

There are no better missionaries to the heathen in foreign lands than American women, but the Japanese in their loose drapery and Sandwich Islanders in their Mother Hubbards, look with amusement or contempt upon the corsets of Christians. The good works of the Women's Christian Temperance Union are well-known, but, amid the highest civilization of Christendom, women still wear jewels hung in the flesh; and in a single season I have seen presi-

dents of local unions wearing birds on their bonnets, apparently in ignorance of the efforts of societies for the prevention of cruelty to animals, the protests of nature-lovers, the entreaties of ornithologists and the ridicule of the press. It is probable that they gave no thought to the matter: they followed the fashion.

Jet and glass trimmings have lately had a long reign, adding greatly to the weight of hats, wraps, and gowns. A lady reporter had the curiosity to ask the weight of a bead-trimmed suit. The scales reported a weight exceeding the maximum of that allowed our soldiers in the last war, their accoutrements, ammunition, and all. One handsome, bead-trimmed cloak was sent back to the dealer, because the lady for whom it was purchased could not stand up under its weight.

We have only just escaped from the imposition of the bustle. For a few years it held sway so universally that intelligent women at last put it on, feeling that their own comparative flatness of back was positive deformity. We all remember the not long-past days when women in every station in life went trailing dress fabrics behind them, upstairs and downstairs, in kitchen, schoolroom, shop, street, and field, unless they carried their skirts in their hands. Women who did not wear trains were looked upon by others as lacking appreciation of the line of beauty, the long sweeping curve. Suddenly the Greek line of beauty disappeared from common view, and the trimmed skirt appeared. No more long lines, but no end of pleating. Rows on rows of heavy pleating, till it became the main task of dress-making, and the chief weight of the garment. Women actually died of pleating.

Machines for its home manufacture were peddled from door to door, and ready-made pleating was sold with dress materials. It had become one of the great staple productions, when suddenly — no more pleating! A plain skirt was true elegance.

What a relief we have lately had! Superficial observers began to speak of progress, and to see in this change of fashion, the hand of evolution. But women had not fairly adjusted themselves to the new régime of simplicity, when their skirts were drawn back, with all the gathers behind, — a very literal drawback to a woman walking. "Her two shy knees clad in a single trouser," as Coventry Patmore said of the "girl of the period," in the former days of the "tie-back,"

—a more immodest exposure, than if she went her way clad in unmistakable, roomy, two-legged trousers.

This is the situation at present. No pockets, no free use of the lower limbs, for her who is "in style"; and "they say" that skirts are lengthening, must now touch the floor; that trains are coming back, and that a demand for hoops is arising.

I remember the evolution of the skeleton skirt, of about thirty years ago, just following the rise and fall of the Bloomer costume. For years, the skeleton skirt swung in the breeze, and served as a sign before the door of every dry-goods store. It was absurd and inartistic; but, if active women must wear long skirts, the skeleton skirt made them more endurable. There was comparative freedom for the organs of locomotion underneath the swinging cage, and one hand could lift the whole super-imposed drapery, instead of using the two hands commonly required to help long skirts upstairs. A yard-long whalebone sewed in the hem of the petticoat, giving a decidedly bell-shaped appearance to the wearer, was the first form of hoop-skirt, I remember, but at last hoop-skirt factories sprang up all over the the land, till it was argued that it would be a sin to oppose the fashion, lest the ruin of the factories should throw thousands out of employment. Women went about like moving pyramids. Inflated skirts, varying in outline from time to time, became so common that a woman without hoops seemed positively immodest.

What a travesty upon good taste,—each one of the ridiculous fashions detailed above "all of which I saw, and a part of which I was!" Is there a more conspicuous instance of "a thoughtless yes" than is found in woman's relation to her own costume? What is it but fetich worship? I refer to the attitude of most women, the unthinking majority. But the report of the minority is about to be heard—a minority so weighty in character and influence that when once heard upon this subject, it cannot long remain the minority.

Who or what is this Fashion, that makes such fools of womankind,—dragging them from one extreme to another, and offering for each change some absurd and contradictory pretence? Though many of her freaks are known to be the result of accident, the eccentricities or misfortunes of great beauties or leaders of society serving as models for the



imitative,—there appears to be some method in her madness. She seems bent upon making our wardrobe as expensive as possible. Some change in her tactics has been observed since the advent of copyrighted patterns. The co-operation between manufacturers, dealers, and pattern makers is a mystery to the uninitiated, but it is evident that women have become, as Jennie June says, “the victims of trade.”

The whole superstructure of woman's dress seems to be founded on a mistake—that beauty should be its chief object. Is not beauty, like happiness, something that comes unsought, as a result of following duty? It seems to me a kind of atheism to call anything beautiful which is an injury to humanity. That Fashion knows nothing whatever about genuine beauty, is evident from her contradictions.

Herbert Spencer says, in the opening chapter of his book on Education:—

“It has been truly said that in the order of time decoration precedes dress. Among people who submit to great physical suffering that they may have themselves handsomely tattooed, extremes of temperature are borne with but little attempt at mitigation. Humboldt tells us that an Orinoco Indian, though quite regardless of bodily comfort, will yet labor for a fortnight to purchase pigment wherewith to make himself admired; and that women of the same tribes who would not hesitate to leave their hut without a fragment of clothing on, would not dare to commit such a breach of decorum as to go out unpainted. . . . In the treatment of both mind and body, the decorative element has continued to predominate in a greater degree among women than among men. Originally, personal adornment occupied the attention of both sexes equally. In these latter days of civilization, however, we see that in the dress of men the regard for appearance has, in a considerable degree, yielded to the regard for comfort; while in their education the useful has of late been trenching upon the ornamental. In neither direction has this change gone so far with women. The wearing of earrings, finger-rings, bracelets; the elaborate dressings of the hair; the still occasional use of paint; the immense labor bestowed in making habiliments sufficiently attractive; and the great discomfort that will be submitted to for the sake of conformity, show how greatly, in the attiring of women, the desire of approbation overrides the desire for warmth and convenience.”

But men are the world's recognized workers. They consider themselves free and independent; themselves “the

people," women, their adjuncts. This is the unspoken opinion of the majority. It is still the theory of the unthinking that women are "protected" and "supported" by men. Woman's dress typifies her subject condition. As she emerges from mingled dollhood and drudgery to reasonable womanhood, to "her grand new standing place of perfect equality by the side of man," she should have the outward appearance of a reasonable being. This does not mean that women should adopt male attire. Equality does not necessarily mean identity. The united wisdom of our women physicians, artists, teachers, preachers, dressmakers, housekeepers, actors, editors, authors, can surely invent a better costume for women who wish to be useful, than any Fashion has yet vouchsafed to either sex.

But will women wear it? Individuals must not be blamed for dressing with "due regard" for the accepted style. Every woman's dress expresses, not only something of her own individuality, but it expresses, even more, her unity with the race, the common history and status of her sex. Viewing the subject from this philosophical standpoint, it seems possible that men are equally responsible with women for the grotesque attire of the female half of humanity.

Some men say strong things against absurd feminine fashions. So do many women. Many more, both men and women, would speak their minds even more strongly and frequently on the subject, but women feel their individual helplessness, and men are too chivalric to taunt them with it. They see how difficult it is for one alone to oppose the strong tide of public sentiment or appear conspicuously "out of fashion."

It is possible, indeed, that men individually are no more independent of fashion than women. There is certainly more variety of personal taste shown in the details of dress among women than among men. But the whole male sex is upon a footing of greater freedom than is the female sex, and this greater freedom is expressed by the main features of their costume — of general rather than personal adoption.

In independent action, it seems impossible to go beyond a certain point without social martyrdom. Read the story of Jean Paul Richter and his effort to go without a cue when his countrymen all wore them, as told by Carlyle in his *Miscellanies*. Grace Greenwood made this idea very graphic

in her lecture on "The Heroic in Common Life," as I heard it more than twenty years ago. She confessed that though she had, in moments of exaltation, felt that she might have done some of the famous heroic deeds of acknowledged heroines, like Joan of Arc, never, never had she felt that she had the courage to calmly face the small boy at the street corner with his derisive yell of "Bloomer!"

The failure of the dress reform movement of about forty years ago, known as the Bloomer episode and begun by some of the very best women of the time, was due largely to its making so great a departure from the common outward appearance. The time was hardly ripe, then, for full dress reform, because so many women, even among those conspicuous in the attempted reform, were so ignorant of physiological principles.

A later dress reform movement, begun by the New England Woman's Club, made improvements that came to stay. A committee from their number thoroughly investigated woman's dress, and recommended important reforms in the under-clothing. These were immediately adopted by many of the best educated women, but it remained for Mrs. Annie Jenness-Miller to make them so widely and favorably known that, at last, they are "the fashion." The fiction that women have no legs is now fully discredited, for in the show windows of the largest dry goods stores stand dummies of the female figure dressed only in the combination undersuit made of wool or silk "tights," covering the whole body, except the head, hands, and feet. By this time everyone must know that woman, like man, is a biped. Can anyone give a good reason why she must lift an unnecessary weight of clothing with every step she takes,—pushing forward folds of restricting drapery and using almost constantly, not only her hands, but her mental power and nervous energy to keep her skirts neat and out of the way of harm to herself and others?

Much discussion has been wasted over the question whether a woman should carry the burden of her voluminous drapery from the shoulders or the hips. Why must she carry this unnecessary weight at all?

If Fashion was indeed a fiend, bent upon the hopeless subjugation of one half the human race, and, through their degradation, upon the extinction of the sentiment of freedom in all humanity, she might go about the work just as she has

lately begun, and train girl babies to their lot, from the cradle.

What are mothers thinking about who put long skirts upon their little daughters, and so deprive them of the few years of physical freedom heretofore allowed our girls? Surely they never rightly valued their own freedom and felt its loss, as did Frances Willard, who says:—

“But there came a day—alas! the day of my youth—on which I was as literally caught out of the fields and pastures as was ever a young colt; confronted by a long dress that had been made for me, corsets and high heeled shoes that had been bought, hair-pins and ribbons for my straying locks, and I was told that it simply ‘wouldn’t answer’ to ‘run wild’ another day. Company from the city was expected; I must be made presentable; I ‘had *got* to look like other folks.’

“That was a long time ago, but I have never known a single physically reasonable day since that sweet May morning, when I cried in vain for longer lease of liberty.”

The transition from the short dresses of childhood to the long skirts of womanhood has been so gradual for most of our younger women, that the victims have paid little heed to the change; especially as skirts have, for some years past, until quite recently, been worn at what is called “walking length,” instead of touching the floor, as fashion now decrees.

In some respects the time now seems very ripe for an onward movement in dress reform. The main stay of the corset was the *basque*—the great discomfort caused by having gowns in two pieces, with heavy skirts, being less noticeable when the corset made the pressure more even. Making a slight exception for the high sleeves, one may say that the female figure is now less dehumanized in its outline, by fashion, than at any time in many years.

More than twenty years ago, Mrs. Abba Gould Woolson, one of the New England club committee, wrote of skirts:

“Do what we will with them, they still add enormously to the weight of clothing, prevent cleanliness of attire about the ankles, overheat by their tops the lower portion of the body, impede locomotion, and invite accidents. In short, they are uncomfortable, unhealthy, unsafe, and unmanageable. Convinced of this fact by patient and almost fruitless attempts to remove their objectionable qualities, the earnest dress-reformer is loath to believe that skirts hanging below the knee are not transitory features in woman’s

attire, as similar features have been in the dress of men, and surely destined to disappear with the tight hour-glass waists and other monstrosities of the present costume. . . . Any changes the wisest of us can to-day propose are only a mitigation of an evil which can never be done away till women emerge from this vast, swaying, undefined, and indefinable mass of drapery into the shape God gave to His human beings."

Mrs. Jenness-Miller, in her lectures on Dress, advises her hearers to read Mrs. Celia B. Whitehead's book entitled "What is the Matter?" Few of her hearers know how very radical are the ideas of dress in that very entertaining little volume, which especially attacks long skirts, and considers none short enough that come within a foot of the floor. All the dress reformers who have helped us hitherto are willing to help us farther.

Now let us join hands, all lovers of liberty, in earnest co-operation to free American women from the dominion of foreign fashion. Let us, as intelligent women, with the aid and encouragement of all good men, take this important matter into our own hands and provide ourselves with convenient garments; a costume that shall say to all beholders that we are equipped for reasonable service to humanity. Let us reserve the long flowing lines and "art dress" for hours of ease and dress occasions, but in our working hours let us be found no longer simply draped, but clothed and in our right minds,—with a dress that allows freedom of lungs and of limbs, one that has plenty of accessible pocket room, a dress that can be easily put on and comfortably worn, subservient to the human body and not its master; not a dress for any distinct "working class" of women, but a costume that every woman may wear freely when she pleases, and by thus wearing may show to all beholders that she wishes to be useful in the world and not a dependent and burden to other workers.

Let us choose a committee of our most capable and honored sisters, and instruct them to give us a costume suitable for walking and for working. If their recommendations shall be for great changes in the outward garments, they may appoint a day when all who are willing to help forward the good work for humanity will simultaneously make the change. Should much opposition to their plans appear, they might well recommend that all men, as well as all women, opposed

to free lungs and free limbs for women, should, on that day, go about in corsets and in skirts reaching to the floor, or with trains and bustles.

For the leaders, and for the rank and file of a new dress reform army, we have now abundant and excellent material. Consider the large number and respectability of our women physicians and artists. Colleges for women have arisen on every hand. They have their gymnasiums and their resident physicians, and every year they send out groups of young women exceptionally strong in mind and body. The society of Collegiate Alumni now numbers between eleven and twelve hundred. Our women's clubs in every city and village are a credit to our sex and an honor to our country. The Woman's Christian Temperance Union has its ramifications everywhere, and its honored leader is brave and outspoken in her advocacy of physical freedom for women, recommending often and heartily, Elizabeth Stuart Phelps' dress reform book on "What to Wear." The Association for the Advancement of Women, the Woman's Suffrage Association with its numerous branches, the Woman's Council, and many other organizations of women,—surely all these will help to undo the heavy burdens and let the fashion-oppressed go free. If the pulpit and the press will stand by us in this most religious and patriotic undertaking, we may now take a decided onward step in the civilization of the race. A great burden may be lifted, a great shame abolished, and a new lease of life and liberty assured to unborn generations.

When old world visitors come to our great celebration, a few years hence, let us show them our better way of clothing women. Let this physical freedom, and with it an incalculable advance in spiritual freedom, be the legacy which the women of this decade shall leave to the twentieth century.



## HIS MOTHER'S BOY.

NO-NAME PAPER. NUMBER TWO.

WE were sitting in my library with the light turned very low. He was my guest under rather sad and trying circumstances, for in the adjoining room lay a little body bandaged and unconscious ; and he, my guest, was the child's brother and guardian. Until to-day we were strangers, but he had arrived an hour before in response to my telegram. I had sent the message the moment I discovered his address, by reading a kind and tender letter, which was taken by the police from the little lad's pocket when he was shot.

On the strength of that letter, I had kept the boy at my own house, instead of sending him to the hospital. Everything it was possible to do had been done for him ; but he had, as yet, never regained consciousness. Notwithstanding this fact, he had twice dragged his weak body from the bed, and attempted to leave the house. He seemed unhappy, only because he could not "go somewhere," as he expressed it, in his mumbled, broken utterance. I supposed that his mind had been so impressed by a journey he was to take, that even in his delirium, he could not forget it, and was trying to push ahead.

I was telling his brother this, as we sat in the darkened library and talked over the case in subdued tones. What I told him was what I now tell you. I had been driving with my wife through the streets of Albany, when we came suddenly upon an excited crowd of men, women, and children. There had been, a few minutes before, a collision between the Pinkerton men and a body of railroad strikers. There lay on the ground, two men, a woman, and this boy. The police were driving the maddened crowd back. One of the officers mistook me for my brother, who is a hospital surgeon, and asked me to look after the child. He was such a delicate looking little fellow, so well dressed and so evidently did not belong to anyone present, that my wife insisted that he be laid in our carriage and driven to our home until his

parents could be notified. This was done. 'An officer went with us, and when we had put the child to bed, while we awaited the coming of the doctor, we searched his pockets and found the letter referred to. It began:—

"My dear little brother," and ended "your devoted brother Walter." At first I did not see the clue this gave, but the envelope was addressed to Master Ralph Travers, and had been written in Malden, Mass., but there was no postmark. It was an old letter too, so that it was not certain that it would be of much use to us.

However, we decided to send a telegram at once to Mr. Walter Travers at Malden, and say that his little brother was seriously hurt and was apparently alone. I did this. The reply came promptly. "I shall come at once. Watch him closely, or he will escape." I looked at the little chap with renewed interest. "Escape!" I thought, and could hardly repress a smile. It seemed such an absurd word to apply to him. After his wounds—for he had received a scalp wound from a stone or club, as well as the bullet in his shoulder—had been dressed, and the doctor had done all he could for him, we had left him alone in the room, hoping he might sleep. We heard his voice, and listened, and looked. He was talking about "going" and later on, he struggled to his feet, and I had to lay him down again.

While we were out of the room another time, he had gone as far as the hall door, and had fallen from weakness.

Then I began to think perhaps he had been insane, and that the word "escape" was used by his brother for that reason. From that moment we did not leave him alone an instant until his brother came.

I did what I could to relieve my guest's natural anxiety about the little fellow. He sat for a long time by the bed, after looking with approval at the bandages and medicines.

"I am a doctor, myself," he said simply, in explanation.

"Oh, that is good," I replied. "I hope you find everything right."

"I do indeed, and how can I thank you? It was— You were very, very kind. I—"

His feelings overcame him. He stooped and kissed the pale face, and then turned to me and took my hand in both of his own and drew me toward the door.

Once outside he said, "You will understand. I cannot

talk of it now. He is very dear to me, and I am all he has in the world, poor little fellow."

He spoke as if the child were in some way afflicted, and I thought again of the word "escape."

"Your emotion is perfectly natural, I am sure," I said. "We did nothing. He is a pretty boy, and we liked to feel that he would prefer to wake up — when that time comes — in a place that would seem more like home than a hospital ward."

The doctor pressed my hand again, and sat down by the library table.

"Tell me all about it, please — all," he said presently.

I did so.

"You wonder how he happened to be here alone, and why I asked you to watch him," he said when I had finished. "You will have to let me tell you a long story; for without a theory I have I could not explain to you either the why, or the how. Even *with* the theory, I am puzzled still. Perhaps you can help me unravel the mystery and advise me for the future. You are older than I. I am not quite thirty, and if the poor little fellow pulls through this, I have still a strange and unknown road to pilot him over."

He sat silent for a moment and looked out into the street through the parted curtains, in front of him. My wife entered, and went softly into the sick-room.

"I should like to hear the story," I said, still vaguely uncomfortable, but with renewed confidence in the man who wrote his little brother the letter I had read, and who seemed now so tender and thoughtful. He began in a low voice, with his eyes fixed on the street beyond.

"When my father brought my pretty young step-mother home, I was prepared to be, if not exactly unfriendly, at least ready to become so upon very slight grounds. I had heard, here and there, as all children do, the hints and flings which prepare their minds for hostile feeling toward the new comer who may be, and often is, wiser, kinder, and more loving than the one whose place she has come to fill."

I was glad my wife had gone into the sick-room. This was a sore point with her. I hoped that she had not heard him.

"But most of us, old and young, take our opinions — receive our entire mental outlook — from others. That which we hear often becomes to our receptive minds a part of our

mental equipment, and we seriously believe that we are stating our own thoughts and opinions when, in nine cases out of ten, we are doing nothing of the kind. Frequency of iteration passes as proof, and we are saddled, before we know it, with a thousand prejudices and assumptions that we have neither originated nor understood, an investigation into whose bearings would not only result, in many cases, in an entire revolution of opinion, but would disturb the basis of many a hoary belief, and right many a cruel injustice."

He paused. I bowed assent, and he went on.

"I supposed that step-mothers were necessarily a very undesirable acquisition in any family, and this well established theory was so firmly rooted in what I believed to be my mind that nothing short of the love and devotion I had for my father enabled me to receive his pretty bride with even a show of cordiality.

"I can see now what a strain it must all have been for her. To come among strangers — all of whom were curious and none of whom excelled in either wisdom or charity — having just entered that strange and winding path called matrimony, with the usual blindness to its meaning with which it is the fashion to invest the one to whom it must always mean much of sorrow and more of responsibility.

"To tread such a path without striking one's feet against the thorns of individuality and tearing one's hands with the thistles of rudely awakened ignorance, must be very difficult; but add to this the fact that my young step-mother would have no friendly faces about her, to which she was accustomed, that there were none of her own kindred and none of her culture and training to whom she might go to unburden her heart or ask advice; and then add to this, also, the fact that her new position involved the wisdom to guide and the patience to win the love of others beside my father, and you will be able to understand something perhaps, of what I shall tell you of her conduct and its unhappy results — as I am convinced — upon my little brother.

"Her constant self denial and heroic efforts to live for others and to sacrifice herself, was, I am satisfied, the sole cause of the strange, sad developments that grew to be so puzzling in the character of her child. Nature is a terrible antagonist. You may refuse her demands and strangle her needs to-day; but to-morrow she will be avenged. The sad-

dest part of this sad fact to me is this. She is too often avenged upon those who are helpless,—upon those who come after.

"I was a lad of seventeen when my new mother came, and I was no better and no worse than the average unthinking youth. I had been trained to be a gentleman, always, toward women, and I hope that I sustained my reputation in my conduct towards my father's wife. She was pretty, too, unusually pretty, and that helped a good deal. It is always easier to be polite to a pretty woman than to one who is lacking in the one thing upon which—to the shame of the race be it said—womanhood has been valued."

I looked up again and smiled. He turned his face to meet my eyes for the first time since he began, and a rather sarcastic smile lit his own somewhat sombre features as he went on.

"It is quite as easy for me now, as a practising physician, to be attentive to and interested in a homely man or boy as in one who has regular features and fine teeth; but it is equally true that this is not the case with women and girls. I trust that I have always done my professional duty in any case; but I have done it with pleasure that was real and interest that was constant, I am sure, far more frequently when the patient has chanced to be a woman of beauty.

"It is not an element which enters into the treatment of my male patients."

"Naturally," I assented, still smiling, and he turned toward the window again, and his usual gravity returned.

"But all this is a digression only in so far as it may serve to illustrate the indubitable fact that—to use a gaming expression—my step-mother played her highest trump card upon my susceptible boyish nature when she stepped from the carriage, and I saw that she was fair to look upon. I made up my mind at once that she should never know that I was sorry she had come, and I did what I could to carry out the resolve.

"But for all that she did know it. Her whole attitude toward me was one of apology and conciliation, and my father saw,—and seeing, alas! approved.

"I am sorry to be compelled to say this, for my father was, in the main, a thoughtful and humane man, and certainly he had no wish to humiliate or harass his young wife. He

thought her conduct quite natural and quite commendable. It looked so to me, also, at that time. This being the case you will readily see how it came about that she, point by point, and step by step, yielded up her own individuality upon the altar of our egoism and made it her duty,—and I still hope that it was in a measure her pleasure, also,—to minister to us and to repress whatever stirrings of personal opinion, desire, or preference she may have had.

“At first, I remember, she would gaze silently for long periods out of the window and sigh. One day she said to me, ‘Walter, did you ever have an intense longing to get away — somewhere? Anywhere?’

“‘I can’t say that I ever had, Saint Katherine,’ I replied, using the name she had asked me to join my father in applying to her. It was the second time I had ventured to so address her, notwithstanding her request, and the other time it had been used with my father’s sportive inflection. That day, however, her sad face and strange question had made me fear that some one had wounded her, and I instinctively used the name with a kind and gentle tone in my voice.

“She turned from the window and faced me. Her lips parted and closed again. Suddenly there were tears in her eyes, and she said with a trembling lip: —

“‘Why, Walter, you are beginning to like me, after all! I —’

“She stopped to steady herself and I, young brute that I was, laughed. I was sorry a moment later, but I had not understood her mood, and so my own had cut across it harshly. She had turned her face to the window again, and I stepped to her side. I was too young and awkward to know just what to say to retrieve myself, so I took her hand in my own and lifted it to my lips, as I had so often seen my father do. She did not move; we were both silent for a long time. At last I said, having whipped myself up to it: —

“‘You are a *saint*, Katherine, and I was a brute to laugh. I — I — didn’t mean to hurt you. I —’

“She threw her arms about my neck, and sobbed like a child. It was the first time I had ever seen a woman weep. I was almost as tall then as I am now, and she was shorter by half a head, than I. For the first time in my life, I began to feel that perhaps father and I were not the only persons in the household who should be considered. I am bound to say



that my thought was very vague and that it took scant root, for her emotion touched my sympathy and I had all I could do to keep back the tears myself.

"At that age, I should have looked upon it as very unmanly to weep, and so I exerted all the little brain I had command of to keep down my very natural emotion."

He paused, but I ventured to make no remark, and he began again.

"I think she mistook my silence — she was but a few years older than I — and so she straightened herself up, and without another word left the room.—But I bore you," he said, breaking off abruptly.

"Not at all, not at all. I am intensely interested. Go on."

He looked at me and was sure of my earnestness, then his voice resumed the same gently reflective tone again.

"She did not come down to dinner that night, and father only remarked that she said her head ached. I felt guilty, I did not know why, or what about; but somehow I felt that instead of helping things on by an attempt to be more friendly, my step-mother and I had succeeded in rendering the home atmosphere even less clear and bright than it was before.

"And so it was. She attempted no farther confidences with me, and gave herself up more and more to household affairs. She appeared to think that it was her duty to be always at the beck and call of my father, and if she planned a drive, — of which she was fond — and he chanced to come in, she would say quietly to the groom:—

"Take the horses back, I shall not go now. Mr. Travers may need me. He came in a moment ago."

"She was all ready to go to Boston one day, and showed more eagerness than I had seen her display since she came to us, when father came up from the office, bringing with him a guest who had unexpectedly arrived from the West.

"Saint Katherine, as I now always called her, took her gloves off as she saw them coming up the walk, and before they opened the door, her hat was laid aside. I felt sure I had seen her lift a handkerchief to her eyes. I said:—

"Confound that old fellow, what did he have to come to-day for? He always stays a week too. But you must make your trip to Boston just the same. We can manage as we used to."

"She looked at me gratefully, I thought, but again restrained herself and said nothing of her own disappointment.

"As I look at it now, it seems to me she never had her own way about anything. She had no companionship but such as had always been congenial to my father, and the interests and aims of the people about us were new to her and unlike those of her old home.

"At last one day I saw her working on a little garment. She hated to sew, and a new light dawned upon me. I think I may have been actuated by jealousy; but I can hardly say what it was that caused me to demand more of her time and attention after that. I felt that the time would soon come when father and I would not be the only ones to claim her attention, and perhaps I proceeded upon that idea to get all I could *while* I could.

"'Won't you play chess with me, Saint Katherine?' I asked that afternoon. 'Oh, I beg pardon, I did not notice the carriage. If you were going out, go.' I said this in a tone that showed very plainly that I would be deprived of my pleasure if she should go. She stayed. I beat her at chess, and was happy.

"As time wore on,—she had been with us over a year now,—her suppressed restlessness grew more apparent. Even my father noticed it, and told her that for the child's sake she should keep herself well under control. I was outside the window when he said it, and it gave me a new idea.

"'Yes,' she said, 'I suppose so; but it seems to me I shall go mad if I can't go away somewhere. I know it must be foolish and wrong; but I so long to see other places, and—'

"'People?' my father suggested, not unkindly. But I remember feeling sorry that he said it.

"There was a long silence. Then she said in a low, self-accusing voice, 'I suppose it is all wrong; but I *should* love to see some of the people I used to know—or even strangers who are, who are not—' She did not finish.

"Presently she said: 'I sometimes think I would crawl on my hands and knees if only I might go—if—don't think I am not satisfied. It is not that, but—'

"My father's voice was low and kind—although he presented the old, and as I now believe, injurious idea of the repression and control of natural desire for the sake of the child—and I walked away.

"The next day I said, 'Saint Katherine, should you like to drive over to Wilton, to-day? We could get back for dinner at seven.'

"'Oh, how nice!' she exclaimed with her eyes sparkling. I made up my mind that I would suggest some such thing every day; but, boy like, I forgot or neglected it.

"We went. Her pleasure in all the new faces and sights was almost childish. She was starving for a change of scene and companionship, and even such as she might easily have had, she often denied herself from an overwrought sense of duty."

My guest got upon his feet, and walked twice across the room, looking in at the sick child as he passed the door.

"She lived only two years longer, and father and I had little Ralph to bring up the best we could. I was so fond of the little fellow that it was easy for me to look after him, and the nurse was not often out of sight or hearing of either father or I, but she had to carry him about constantly. He was an angel in motion, so my father said; but the moment he was kept quiet or still, he was anything but an angel. He would have his own way by hook or by crook, and as soon as he could walk, we had to lock the door of his room, or he would slip out of his little low bed when nurse was asleep, and scramble down stairs and out into the grounds and be lost."

I began to see new meaning in the word "escape."

"Three or four times we had a great fright in that way. Then we locked the door. As he grew older that did not work. He unlocked it, or climbed out of the window.

"When he was seven years old, he ran off and got as far as Norton, on the highway to Boston, before he was found. He was tired, and hungry, and footsore; but he was trudging steadily on.

"A farmer picked him up, and brought him home. Hardly a month passed from that time on that he did not run away. I remember the first time I found him. He was sitting by the railway track, eight miles from home, waiting for the west bound train. He was nearly eight years old then, and as handsome a child, and as good a one in other ways, as you often meet. I struck him that time. I was so frightened. You know that is brute instinct, to strike the thing you love when you have just rescued it from danger. I rarely

ever saw a mother snatch her child out of danger, that she did not either strike or scold it, before the pallor of anguish at the thought of its peril, had left her face. It is a strange human characteristic. I have often tried to solve its exact meaning." He was silent so long that I turned. He was just returning from another glance into the boy's room.

I mumbled assent, and he resumed his seat by the table.

"But to go back to the boy. He looked up at me in terrified surprise. I had never struck him before. Then he said:—

"‘The cars would have come in ten minutes. That man said so. I was going to—to—’

"‘You were going to Chicago, I suppose,’ I said indignantly, as the train thundered past a moment later.

"‘Chicago, yes,’ he said, brightening up. I think that was the first time he knew where he was bound for.

"Soon after that my father died. Ralph promised him not to run away any more, and I think he tried to keep his promise; but in less than six months, what I believe to have been his inheritance from the starved and repressed nature of his mother, got the best of him again, and he escaped. We could trace him a short distance, and then all clues faded out. The whole village turned out, and day and night we looked. We telegraphed the railway men, but to no purpose.

"At last we gave him up. We concluded he had attempted to cross the river, and had been drowned. God! how I lashed myself for having struck him!"

My guest wiped the dampness from his face now, and sat silent for a long time. My wife had returned from the sick room a moment before, and seated herself in the shadow. He did not appear to notice that we were not alone.

"It was during this time that I began to think out—blindly and vaguely—the reason for my little brother's curious mania," he began again, and my wife motioned me not to call his attention to her. "His mother had refused to Nature all that it plead for of personal pleasure and self-gratification; and starved and outraged Nature, I began to believe, had transmitted to the child, not only the craving that had gone unsatisfied, but the self will to execute it. Boys, you know, are not trained to think that the world was made for woman with man, an incident in her life. They are not made to feel that they should have no personality.

But their desires, their ambitions, their personality as individuals are to be honored and gratified if possible, and so the trend of thought and the strength of will fitted well into his heredity—the stamp he bore of longing for the change she never had—and so I grew to believe that he travelled the road Nature had laid out, and custom had paved for him.”

I could see my wife's eyes grow large and intense, as she bent forward to listen.

“It was five weeks before we heard from him. We had given him up for dead, when he walked in one day, and frightened the servants almost to death.

“I did not strike him that time. I had begun to think.

“He told me that night, all about his travels and how homesick he got. It was a strange tale and broken by his enthusiasm about a certain circus man who had been kind to him, and cared for him for several days until the child had run away from his new friend, under the spell of his hereditary trait.”

I knew now what the word “escape” had meant in that telegram, and my wife nodded to me with the same thought in her mind.

“He promised to stay at home now, and said that he was very sorry that I had worried so much about him. He stayed nearly a year. Then he really did go to Chicago. He stole or begged rides on the cars and people gave him food. He fell into the hands of the police, and I was telegraphed for. They sent for me, and I brought him home. He was ragged and repentant. That was last Christmas. I gave him a new pony upon his solemn promise not to ride more than five miles from home without the groom or me. He said that was all he wanted. He was sure of it, and I hoped the sense of freedom,—of going on his own horse and where and when he wished,—*would* keep his mania in check.

“I had hopes that after he should be thirteen or fourteen years old he would outgrow it, and I have been trying to tide him over to that time. I have tried too, all along, in my rather immature way to arouse his sense of honor and responsibility toward me. But the ideas conveyed by those words have seemed to strike sympathetic but disabled chords in his nature. His mother's over-taxed self-repression and sense of duty to others, her lack of comprehension of *self-duty* and personal value has reacted in her boy, to restore the balance

to Nature, and he is swept into the path of her repression with a force beyond his power to check.

"I have grown to feel that father and I, in our egotistic blindness, helped to stamp the boy with his uncomfortable inheritance, and now I must bide my time, and act as wisely and as kindly as I can."

"You seem to have been very thoughtful and studious," I ventured. "It is a puzzling case and a new idea to me."

"My study of anthropology helped me, I suppose," he replied, rising nervously to pace the floor again.

"It was a fortunate thing for poor little Ralph that I took that for my life work. It *has* helped me to read between the lines for him, and to be wise with him beyond my years perhaps. I have always been glad of that."

He had paused near the bedroom door, but he had not seen my wife as she sat in the shadow.

"His pony was all right for a time; but when he heard me read—I was a fool to do it—of the railroad strikes in Albany, it was too much for him. His five miles stretched into twenty, and then, I fancy, some unscrupulous fellow told him he would give him a ticket to Albany in exchange for his horse. It was too much for him. No doubt he parted with poor Gip with a sob, and climbed aboard the train. And to think that it should have been poor little Ralph whose curiosity and ignorance took him where he received the murderous Pinkerton bullet and that cruel blow on the head. Poor little chap! I cannot believe he will die, though his chances are very slim, very slim, indeed," he said sadly, as he turned to enter the sick-room.

A cry escaped him. I sprang to my feet in time to see him catch to his breast the little white form that had staggered silently into the room.

"Brother!" the weak little voice cried in delight, and he then fainted again. The doctor laid him in his bed gently, and my wife bent over him.

"That means that he is better, Doctor," she said in a voice that tried to be confident and cheery. "He has known no one before since we brought him home. What a lovely face he has!"

"Yes, he has his mother's own face," he replied with a sigh. "She was a lovely woman, and alas! she was the victim of her own virtues—as he is."



"I fancy my wife will question your standard of virtues," I said, as we returned to the library some time after. He smiled more lightly than I had yet seen him, and turned to her.

"I question that myself, madam—as an anthropologist and a student of heredity."

"You do not think, then, that the creative or character-moulding parent can afford to risk self effacement and subserviency of intellect and position?" she asked dryly.

"Not unless we wish to continue a subservient and incompetent race, which shall be dominated by power cruelly used," he replied, looking steadily at her. Then he added, smiling:

"This I speak, as Saint Paul might say, not as a man; but as an anthropologist. I am still a little bit in the position of the brave apostle, too. The 'natural man' and the scientific are at war within me. The one cries 'Travers, you would like for your wife and daughters to be sweetly, confidently dependent upon you, and to live for and because of you, to be unselfish, and self sacrificing,' and I reply. 'I love it dearly; it is a sweet and holy idea to me.' Then the scientific man remarks, 'Doctor, are you not providing for a basis of character and heredity which shall make your children the victims of your egotism?' And the doctor bows assent."

My wife laughed softly, and stepped to the inner door.

"He *is* better," she said, coming back. "He is sleeping naturally for the first time." Then she stepped quickly to the doctor's side, and held out her hand.

"He will not need a mother *much* while the anthropologist lives with you, but if he ever should—come to me."

There were tears in her eyes, as there were in those of our guest. He held her hand a moment, and then turned abruptly and left the room.

An hour later there stood on my wife's desk a handsome bunch of roses, and my wife only smiled.

"Shall you say anything more about it?" I asked.

"No," she replied. "There is no need. He will send the boy here when he grows restless at home, I am sure of that now. These roses are my answer. Perhaps between the two we can satisfy his travelling instinct. What a mercy it was not something worse!"

"What?" I asked in astonishment.

"I heard the whole story," she said, "and I could not help thinking that his theory would account for a good many things in the world. It is the exact opposite of the usual one. Woman has been taught that to repress and keep in check nature, will make her child strong and suppress in it the development of unreasonable appetite—as for drink or murder. His idea seems to be that undue repression as surely as undue indulgence, will make its heavy mark on the plastic nature forming. Perhaps that is true. Nature struggles to restore the balance. How do we know that murder in the heart, though it be repressed, may not account for many a tragedy in the next generation? Who knows but a run-down system depriving itself of stimulants it craves may not account for the yearning born in many a man for such stimulants? Who knows but —"

My wife stopped. Presently she said:—

"He scared me almost to death as he developed that idea in my mind. What a lot we have got to learn of it all, even if he is wrong!"

"Don't learn it," I said laughing. "It will tire you out."

"It tires me out not to," she said. "I am going to study anthropology."

Two weeks later she said:—

"The books are so stupid. They assume everything and they prove nothing, because their assumptions are all wrong. I'm going to ask Dr. Travers to write from *his* premises, and see if he can't stir up a little less obscure and complacent thought. Even if he is not on the right track, it will do these stupid moles good. They get nowhere because they start wrong."

"Better write one yourself," I suggested, smiling.

"I shall do nothing of the kind. I don't know enough about it."

"Oh," I called after her, as she left the room, "I didn't suppose a knowledge of the subject to be written upon was at all necessary. What a ridiculous conscience you have, Eva."

She has not mentioned it since, but I do not believe she takes my flippancy as in good taste. Anyhow, I have dropped the subject of heredity with the feeling that I had got perilously near a buzz saw in motion.

## EDITORIAL NOTES.

**DEPLORABLE SOCIAL CONDITIONS.** SOCIAL problems are assuming giant proportions. The relations existing between capital and labor are daily growing more strained. The stream of misery grows broader as colossal fortunes rise skyward. The poverty in all our great centres of civilization, as well as throughout the landlord and mortgage-cursed frontiers, is, year by year, growing more terrible and more general. There have been two thousand six hundred and fifty foreclosures of farm mortgages in Kansas during the past six months. In the city of New York there are over one hundred and fifty thousand people who earn less than sixty cents a day. Thousands of this number are poor girls who work from eleven to sixteen hours a day. Last year there were over twenty-three thousand families forcibly evicted in that city, owing to their inability to pay their rent. One person in every ten who died in New York in 1889 was buried in the Potter's Field. These are facts which may well give rise to anxious thoughts.

**UNINVITED POVERTY.** The prime factors in producing the crime, misery, and degradation which mark the lives of untold millions are summed up in that trinity of evil: poverty, rum, and masculine immorality. By poverty as here used I mean uninvited want. If we except the lot of the poor factory and sewing girls, whose fate is often so grimly tragic that it is only their splendid moral strength which keeps them from the abyss of vice, there are few sadder spectacles in life to-day than the poor who cry for work, who pace the pavements from dawn to dark, hunting employment and finding none. In his valuable work, "How the Other Half Lives," Mr. Riis cites the following case, typical of thousands of lives in New York City: "A young woman employed in a manufacturing house in New York; she averages three dollars a week, pays one dollar and a half for her room. For breakfast she has a cup of coffee; lunch she cannot afford. One meal a day is her allowance." According to Mr. Riis, the sweater of the East Side pays his white slaves from twenty to thirty-five cents a dozen for making flannel shirts. During the great shirt-makers' strike in New York, many tales of infinite misery were recited. The pathos of some of these simple narrations eclipses the finest touches of the masters in fiction. One poor woman testified that she worked eleven hours in the shop and four hours at home, in all fifteen hours every day, and never made more than six dollars a week. "I commence work," said another,

"at four in the morning, and do not leave off until eleven at night." They had to find their own thread and pay the rent of their machines out of the beggarly pittance they received. Nor is New York an exception, although poverty is doubtless more terrible there than in our other populous centres. All the great cities, however, have a large army of honest toilers who are heroically battling for the bare necessities of life; many struggle to hide their true condition, and it is only to those they know and in whom they can confide that the depth of life's bitterness is revealed. Many instances of this character are constantly coming to my ear. A few weeks since a friend met a poor woman in the Institute Fair of this city. She was making four dollars a week; of this two dollars were spent for rent; one dollar and a half for food for herself and child, leaving fifty cents for light, heat, clothing, and extras. She lived a great distance from the Fair building, but could not afford to ride either way. She did not complain, however, of her condition so long as the Fair continued, but expressed dismay at the outlook after it closed, as winter was before her and she knew not what she could do. This case typifies hundreds in Boston. The Rev. Walter J. Swaffield of the Baptist Bethel in this city has recorded the following suggestive facts which he compiled for THE ARENA,—facts which have been forced upon his attention in visiting the very poor in his parish in Boston.

On the fifth floor of an over-crowded tenement house in the north end of Boston, a sick man, wife, and six children were found, huddled together in two dingy, smoky rooms, neither of them larger than 8x8, for which they had to pay one dollar and a half per week. The only means of support they had was the uncertain revenue derived by the woman for making pants. She could seldom earn more than two dollars and a quarter per week, leaving but seventy-five cents with which to clothe and support the family. For six weeks that woman had worn the same dress, while the children had but one or a part of one garment apiece.

Another family of seven persons, invalid husband, wife, and five children, were crowded in a room hardly large enough for two persons. All the furniture in the room was an old borrowed stove, one broken chair, and a broken bedstead, no cooking utensils. The children had scarcely a rag on them, and for their dinner were eating sliced raw potatoes. They had not tasted bread for three days, nor meat for weeks. One week after our visit, another child was born into the family, only to give it, no fuel nor fire for two days, and was dependent upon the kindness of a widow in the next room for a warm place beside her fire.

In another house was an American family of six persons living in two rooms rented at one dollar and a half a week. The man out of work, not a morsel of food in the place, no fuel or fire, the only articles of furniture being a stove, a small trunk, a dry goods box, and on the floor in the corner of the room a heap of seaweed which was their only bed. It had been gathered from the beach the day before.

Not far from this family was found another room full of poor and suffering ones without food or fire, in the depth of winter. The four eldest children huddled together in bed at noontime to keep each other warm, while the hungry and crying baby was blue with cold in the bosom of its starving mother.

A widow, left with five little children, has to support herself and family, and pay one dollar and a half per week rent for two small rooms. Her only hope is in securing pants enough to make at fourteen cents a pair. In order to keep body and soul together, she must teach the two little girls "Constance" and "Maggie," aged five and three, how to sew, and thus do their part in keeping the wolf from the door. These two babies work early and late, the five-year-old seamstress overcasting the long seams of four pairs of pants a day, and the three-year-old dot managing to overcast two pairs. They handle the needle like professionals. Mother and two daughters together thus earn from two dollars and a quarter to two dollars and a half a week, after paying rent having but a single dollar left to feed and clothe the whole family.

The time of my visit was near the dinner hour, but all the preparation for the principal meal of the day was the stirring of corn meal into boiling water.

Mr. Swaffield declares that these are not exceptional cases, that there are scores if not hundreds of little ones who are from three years old upwards, who are thus compelled to work or starve. These very poor persons, he observes, live on the very refuse of the market; they harden themselves against the bitter cry of hungry children. The army of the honest unemployed! Pathetic beyond words is their fate: hunger, cold, and humiliation their common lot. If they sink into vice or crime, no mercy is accorded them, and yet everything conspires to drag them down.

THE  
RUM CURSE.

No one who gives personal attention to the problems of poverty and crime can fail to be impressed with the power of the saloon as a factor in the degradation and misery of humanity. Rum is criminalizing the poverty-stricken world. This great deadly shadow which rests so heavily over the teeming, seething, struggling millions is the despair of the philanthropist. Take, for example, New York. In this city alone we find nearly eight thousand saloons. Below Fourteenth Street we find one hundred and eleven Protestant churches, and over *four thousand saloons!* And these four thousand rum shops are turning the political wheel of the Empire City, while they are glutting the criminal courts, and overshadowing with misery, degradation, and nameless dread the lives of tens of thousands of the half million dwellers in tenement houses who are huddled in this section of the city. "In Ireland," says Mr. Justice Fitzgerald, "intemperance leads to nineteen-twentieths of the crime; but," he adds, "no one proposes a coercion act." English and American judges, who are not the protégés of the rum power, all agree that this is the giant feeder of crime. But aside from the crime that blazes forth in our criminal courts, the saloon is one of the greatest feeders of the immorality that flourishes under cover and which is probably more than any other one thing undermining society and enervating manhood and womanhood to-day. In his valuable work recently published in Paris, entitled "Anthropometric Study of Prostitutes and Thieves," Dr. Tarnowski informs us that both parents, in fifty cases out of one hundred and twenty-four prostitutes, whose cases he exhaustively examined, were drunkards, and

ninety-five out of one hundred and fifty cases freely admitted that they used liquor to excess: in other words, they could ply their terrible trade only by drowning all their nobler impulses and unnaturally firing their bestial instincts. These are only hints of facts which are known to every one who stops to think. In vain do men lecture, in vain cite statistics, in vain prove that rum is building our jails, peopling our prisons, and the prime consumer of millions upon millions of dollars for maintenance of criminal courts to inflict punishment on those who, through its deadly influence, have committed crime. We all know the facts. The very hopelessness of the case seems to lie in the indifference of society, — the conscience of civilization is so paralyzed that the appalling truth makes but little impression. Until this condition can be changed, until the moral death-spell can be broken and the higher impulses quickened, we may continue to pass laws, continue to experiment with a traffic which has proved itself to be the most unmitigated curse that has ever visited the earth; but little good will result. In olden times, *when Christianity meant something*, the great apostle of the Gentiles thundered forth these words, "If the eating of meat make my brother to offend, I will eat no flesh while the world standeth." At the present time, in the presence of a Christian civilization that is disgraced and dishonored by a curse which all admit is the most frightful source of crime and misery, the clergy of the Christian church is not imitating the apostle; on the contrary, many ministers are indulging moderately in wine, in brutal disregard of the weak brothers who are stumbling: while, with a few honorable exceptions, the clergy is not thundering against this curse. If with the vast influence which it wields it was filled with the conviction of common justice, lit by divine love for humanity, and fired by the spirit of truth, it could, in a few weeks, enthuse the civilized world; it could create public sentiment that would sweep this curse from the face of civilization. So deeply, however, has the rum power embedded itself in many of the churches, so powerfully do its feelers grasp the woof and web of fashionable Christianity, and so loudly does the cry, "Prophecy to us smooth things," come from the richly-cushioned pews on the one hand, while so meaningless have grown the grand ethical impulses of Christendom on the other, that we cannot expect such action from the church as a unit. Yet this direct appeal to the conscience of the people must be made. This positive and energetic agitation must be inaugurated. It is idle to make laws and leave the public impulse dormant. Arouse the people, and the evil will disappear. Make men see and feel that the rum-seller is a greater curse to the community than a professional thief; that a saloon is a more positive evil to a neighborhood than a shanty filled with smallpox patients, and a fire will be kindled which will purge the country of its greatest crime and misery breeder whose colossal shadow envelops Christendom, and carries a thrill of misery, a pulsation of vice, a throb of degradation wherever it falls.



**MASCULINE IMMORALITY.** There is another fruitful source of anguish and degradation, an evil whose cancer-like roots are stretching in every direction on the breast of civilization; an evil that has assumed enormous proportions, owing to the fatal mistake which conservative thought has made in uniting with the votaries of vice in attempting to crush all those who call public attention to the extent of the ravages of immorality, and create a general sentiment for reform in the only manner which has ever proved successful in accomplishing great revolutions — agitation — public, persistent, and determined agitation. If the true facts of masculine immorality in life to-day were forced home upon the people, a social revolution would follow as positive and beneficent as any which has marked the progress of humanity. We are constantly receiving hints in the papers, and in our contact with others in everyday life, which reveals the frightful degradation of manhood, owing to the double standard of morality. Mr. Stead's *Pall Mall Gazette* exposures, and the Cleveland Street scandal of London, the loathsome truths which come out constantly in divorce trials, such as were exhibited in the recent O'Shea suit, merely give us hints of the social ulcer that is eating into the heart of civilization. Those most conversant with college life know how frightful is the condition of morals in our colleges, but, save a hint now and then which creeps into the newspapers, the world is ignorant of the facts. The following news item, published recently in the court notes in our Boston papers, is typical of conditions as they exist in society to-day. It was apparently considered of too little importance, or of too common occurrence, to call forth editorial comment from the daily press. The facts published were substantially as follows: A poor girl was arrested for stealing; in court she was accused, and admitted the theft. "I had to eat or starve," she said. "But you stole clothing." "I have to wear something." "How do you pay your room rent?" "Oh, one of the Technology boys pays that." "Do you know of other girls who have their rent paid by Technology boys?" "Oh, yes, several; but they won't give us anything more than our room rent, and we have to eat and dress." Another hint of a condition far too common in collegiate life, especially in our great cities, was brought out in the recent suicide of Arthur Caldwell in Baltimore. Briefly stated, the facts that bear on the question under consideration, as reported in the daily press, are as follows: Eighteen months ago this young man, then only eighteen years of age, went from Canada to Baltimore, to attend the Baltimore College of Dental Surgery. Before long he became one of the "fast set" of the college, spending large sums sent him by his mother and uncle chiefly on wine and women. Once or twice, stricken by remorse, he made feeble attempts to reform, but in the midst of his gay associates he soon relapsed into his fast life. During a portion of his career, Arthur Caldwell roomed with a fellow student, on the corner of Green and Mulberry Streets. One day, during

this period, his roommate brought home a companion, whom he introduced as Harry Eel. This young person wore knee breeches and a light coat, and was said to be very prepossessing. The three roomed together for some time. At last a quarrel arose between them, and Harry Eel and the roommate left Caldwell. During this time the police were searching far and wide for the eighteen-year-old daughter of a well-known citizen, who had suddenly disappeared. No traces of the girl could be discovered until Caldwell, out of pique, informed the police that Harry Eel was the young lady they were searching for. She was accordingly arrested, and proved to be in truth the missing girl. Nor was this by any means the only romance in which young Caldwell figured. On finding that his mother had been made acquainted with his habit of life, and that she was on her way to take him home, young Caldwell committed suicide. Such facts are typical of an appalling social condition, due largely to the fact that too long the agitation of the condition of man's degradation and its direful results has been "forbidden." "Oh, we all know these things exist, but we must not publish them!" exclaimed a timid friend, voicing the shallow cry of two classes,—the unwisely conservative, and the positively vicious. "Why?" "It would not do for our girls to know of such things," came the prompt reply. In the name of sacred womanhood, why not? Why should they not know, that they may be forewarned? Why should they be kept in ignorance of the presence of vipers when they tread the thicket, until the fatal fangs enter their innocent flesh, and their cry proclaims their ruin? No duty confronts civilization that is more pressing than the enlightenment of our daughters on this most vital point—the dangers that beset them. We have long paid the tribute of silence which lust has demanded, and the result has been an ever increasing army of ruined girls—ruined because they were not properly warned; ruined because they were not armed with the priceless knowledge that would have made them invulnerable; ruined because Mrs. Grundy has united with superficial prudes and lecherous hypocrites in crying down every effort to create a healthy agitation of this vital problem. The result of this fatal silence is as terrible to man as woman; it is ever lowering his standard of morality, sinking him in the depths of degradation, turning out armies of libertines who prey on innocence and beauty.

General Booth, in his "Darkest England," well observes: "The lot of a negress in equatorial Africa is not perhaps a very happy one, but is it worse than that of a pretty orphan girl in our Christian capital? A young, penniless girl, if she be pretty, is often hunted from pillar to post by her employers, confronted always by the alternative, starve or sin, and when once the poor girl has consented to buy the right to earn her living by the sacrifice of her virtue, then she is treated as a slave and an outcast by the very man who had ruined her; her word becomes unbelievable; her life ignominy, and she is swept downward into the bottomless perdition of prostitution." A report of one hundred cases taken as they were entered on the registry of one of the Salvation Army

rescue stations, showed that the cause that led to the ruin of thirty-three out of the one hundred young women was seduction. One third of the girls who fall in that life, which is far worse than death, meet their ruin by listening to the seductive voice of men, and when they have no adequate picture before their mental vision of the terrible results of yielding to their tempters; while it is certainly safe to add at least one-third of the poor girls in the great cities who become outcasts would have at least lived lives of self-respect, were it not for the immorality of men, who, taking advantage of their great need, have hounded them until they have accomplished their diabolical purpose, and then spurned them in their misery. *The ethical standard for man must be raised, or the degradation of woman will follow.* An equal standard should be the slogan cry of the rising generation, and that standard absolute purity. The triumph of love over lust, the moral over the animal, the soul over the body.

THE AGE OF CONSENT. The degradation of manhood at the present time is evinced on every hand, but nowhere is it more vividly illustrated than in what are known as the "age of consent" laws, by which legal statutes define the age at which a girl may consent to her own ruin. Up to the time when Mr. Stead tore away the mask of hypocrisy that enveloped the lordly legislative despoilers of womanhood in England, and revealed the awful picture of an army of little girls being literally sacrificed every day of every week of every month to the lusts of rich men, the legal age of consent in between twenty and thirty States and Territories of the United States ranged between seven and ten years, and to-day in thirty-six of our States and Territories the legal age of consent is under fifteen years. Let us sound the import of this terrible truth. If a government has any legitimate function it is that of defending the weak from the outrages of the strong and securing as far as possible equal justice for her citizens. When a government legislates in the interest of one class and to the injury of another, it has clearly exceeded its function, but when it goes beyond this and deliberately legislates in the interest of the lust of men, and against the most defenceless of its citizens, legislates to place little children whose lives have not yet opened into the flower of maturity, in the hands of moral lepers to be despoiled and forever ruined, it inaugurates a policy as suicidal as it is unjust, as destructive as it is infamous, a policy that vividly reminds us of the age of Agrippina and Nero, yet that is precisely the present status of our laws in every State excepting Kansas, where the age of consent is eighteen, or the same age as entitles a woman to marry and transact business in her own right. In thirty-six States and Territories the age of consent to her ruin is less than fifteen, notwithstanding she cannot marry without her parents' consent, nor can she transfer property until

she reaches eighteen. Here for example is a poor girl: she has a little property left her, but she is only fourteen. The State, to protect her from being unduly influenced, because she is a frail child,—a minor,—steps in and forbids her handling her property. She wishes to make a contract; the State declares that owing to her minority the contract shall not be binding. She falls in love with a man, and wishes to enter the bonds of honorable matrimony. Again the State interposes: her consent is of no value. Again we find another girl struggling to sustain her failing strength on meagre wages. It is winter; she may have a helpless mother dependent on her; her employer takes advantage of her extremity, and makes the price of her virtue the condition of her continued wages. Does the law step in here where the poor child most needs protection, declaring in the name of justice that he who pollutes and degrades this defenceless minor shall suffer a punishment commensurate with the terrible crime? Oh, no! the fathers, husbands, and brothers who make laws for women and children, have stamped their own degradation on our statutes, for here the law comes forward and says, though the child shall be protected in her property, though her contracts in business affairs shall not be binding, though she shall not be allowed honorable marriage where parents or guardian object, she may consent to her spiritual, moral, and physical ruin, and the arch fiend who has thus robbed her of the crown of womanhood—her virtue—is protected behind these infamous laws, enacted by fathers, husbands, and brothers for the furtherance of animal lust and moral degradation in men, and the destruction of maidenhood. Such are the statutes which to-day blister the brow of justice in thirty-six States and Territories. Nor does this begin to express the horror of the situation. In the States of Minnesota, Colorado, Alabama, Georgia, North and South Carolina, Texas, Idaho, and South Dakota, the age of consent is only TEN YEARS; while Delaware has long retained a statute making the age seven years, and this statute of seven years in case of rape is unrepealed, although, through the persistent agitation of noble-hearted men and women last year, an act was passed fixing the age in cases of seduction at fifteen years. Think of the infamous laws passed to protect libertines, who pollute innocent little girls ten years old! Was ever travesty on justice greater, or has law ever touched a lower depth of degradation?

**MORE FACTS** I do not believe that such laws would be tolerated if the facts were generally known; but the fact is,  
**AND** the hypocrites have so stifled free discussion, and have so persistently cried down every effort to  
**WHAT THEY** awaken and inform the public that comparatively few of the great mass of honest, earnest, home-loving  
**REVEAL.** people of the land know the awful truth. And we must not allow ourselves to be deceived by the delusive hope that man is growing more moral, high-minded, and

humane, from the fact that during the last few years the age of consent has been raised in a score or more of States, from seven and ten, to from twelve to sixteen. There is a reason for these changes; a reason as significant as it is well known to students of this problem. The *Pall Mall Gazette* revelation wrought this tremendous reaction. As Mr. A. M. Powell well observes: "It is encouraging to note the fact that nearly, if not quite, all the States which have raised the age of legal protection at all above twelve years, have done so since the agitation of the question by Mr. Stead, when he made his startling revelation in London." And this is true. That episode which cost Mr. Stead two years' imprisonment (be it said to the everlasting shame of England), saved millions of girls from ruin, and, in my judgment, was the grandest single act that has marked our epoch in recent years. What were the facts? A bill had been introduced to raise the age of consent in England from thirteen to sixteen years, but it had been pigeon-holed. There was no prospect of its passage, unless the people could be aroused. Thousands of persons knew the frightful condition of affairs, but were afraid to speak lest they be called "indelicate." Rather than risk public opprobrium they were willing that year by year thousands and tens of thousands of girls should be sacrificed on the altar of masculine lust. Mr. Stead, with the heroism of a high-minded soul, tore aside the mask of hypocrisy. The world was amazed, horrified, sickened. In bold dramatic pictures the truth was brought home to the firesides of civilization as never before. Then, for the first time, men saw the enormity of the crimes, the existence of which they had before known but never given due thought. What was the result? Mr. Stead was sent to prison, but he had so aroused England that the people demanded the passage of the pigeon-holed bill, and the age of consent was raised from thirteen to sixteen years. Nor was this all. America felt the thrill of horror that the *Pall Mall Gazette* had awakened. Enormous editions of that journal containing the revelations were sold in the eastern cities. The press was full of it. In vain did conservatism endeavor to suppress the discussion and the details of the revelation on the threadbare plea that it was dangerous for the people, and especially young people, to know the truth. *The revelations were dangerous for the moral lepers.* They awakened parents to the perils before their daughters, and revealed to girls the snares that confronted them. They did more. They created that healthy public sentiment for right and justice that is always evinced when agitation unmasks a great wrong. New York was the first State to raise the age of consent from ten to sixteen years. Other States followed her example, but only after hard-fought battles, and in many instances the age has been only increased to twelve or thirteen years. Now, however, since the excitement of those revelations has died away, and under the fostering influence of that false sentiment which condemns all brave efforts to arouse the public by picturing the awful truth as it is, year by year, in secret sessions, strenuous efforts

are being put forth to again reduce the age of consent. As for example, in New York last year, where Senator McNaughton introduced into the State Senate a bill to reduce the age of consent from sixteen to fourteen years. The judiciary committee reported favorably, and had it not been discovered just as its framers were preparing to crowd it through in the closing hours it would doubtless have been passed. A few papers were courageous enough to denounce the bill in unmeasured terms, and it was killed. On the very day that Senator McNaughton introduced his bill to reduce the age of consent to fourteen years, an elderly man was convicted in the court of General Sessions in New York City for abducting a fourteen-year-old school girl. This man was a trustee of one of the Hoboken churches; had for years been employed in a Sixth Avenue hardware store. He took the girl first to a house of ill-repute, but was refused entrance because the child was not the legal age,—sixteen. He then went to a hotel, went upstairs alone, registered, and returned to take the girl with him, but the porter refused to let them go upstairs, as the child was so small. On leaving the house, he was arrested. In the interest of this army of moral lepers and the proprietors of houses of ill-repute, these efforts are being annually made to reduce the legal age of consent. It is worthy of note that these sessions are always secret, as it is said the matter is not fit for women to hear, and it would be highly demoralizing for young girls to know what is said. Was sophistry ever more blatant or hypocrisy more audacious? Mothers and maidens must not hear arguments advanced in favor of laws that protect blacklegs and libertines in their pastime of despoiling maidenhood. It is the laws, not the arguments advanced, that tend to pollute womanhood. It is the laws, not the exposure that leads to a cure, that are dangerous, and this is the one fact that must ever be kept in view. Dark as the outlook is I have strong hopes for the future. We have all seen what a policy of silence has produced. On the other hand the results that followed Mr. Stead's exposure have demonstrated what a fearless unmasking of the truth will accomplish. The most urgent need of the present is the united influence of the press, the pulpit, the novel, and the drama in *acquainting people with the terrible facts as they exist*. Then justice will follow.



